

# INSPECTOR GENERAL DEPARTMENT OF DEFENSE 400 ARMY NAVY DRIVE ARLINGTON, VIRGINIA 22202-2884



Analysis and Followup

JUN - 3 1994

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION
AND TECHNOLOGY

SUBJECT:

General Accounting Office Draft Report, "DEFENSE MANAGEMENT: Impediments Jeopardize Logistics Corporate Information Management," Dated May 27, 1994 (GAO Code 398141), OSD Case 9660--PREPARATION OF THE PROPOSED DOD RESPONSE TO THE GAO DRAFT REPORT

On May 27, 1994, the Department of Defense (DoD) received the subject draft report from the General Accounting Office (GAO) for comment. A copy of both the transmittal letter and draft report is enclosed. (In addition, a separate listing of the related GAO reports is being provided with applicable OSD Case number references—see Appendix I of subject report.) In order to meet the 30-day comment requirement, the proposed response is due in this office by June 23.

An advance copy of the draft report previously was furnished to your action officer, Mr. Richard Allen--703-274-3740, who is located in the Office of the Deputy Under Secretary of Defense for Logistics. Advance copies of the draft also were distributed to the following collateral action office points of contact:

•	ARMY	-	COL John	Boynton703-695-6000

NAVY - CAPT Dan Pendarvis--703-697-7774

• AIR FORCE - Mr. Allen Beckett--703-614-3548

• OCOMP, DOD - Ms. Leslie Nixon--703-697-8281

• OASD(C3I) - Mr. Ron Oxley--703-604-1564 Ms. Sally Brown--703-614-0301

• DISA - Mr. Jerry Russomano--703-756-4743

• DLA - Mr. Joseph Malloy--703-274-3195

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The GAO provided a preliminary version of the draft for a information at the Masrch 18 exit briefing. Your office continues as the primary action office for this case. Applicable DoD Directive 7650.2 requires that the primary action office (1) review the subject draft report, (2) obtain input from the collateral action offices, (3) prepare a proposed response on behalf of the Secretary, and (4) submit the proposed response to this office for coordination and clearance—prior to its release to the GAO.

The generally applicable procedures for responding to GAO draft reports are described in a preprinted instruction, <u>Information Sheet--Series B</u> (copy enclosed). Those procedures should be reviewed carefully. We call your particular attention to paragraphs 3 through 12. Basic requirements for processing GAO draft reports include the following:

- annotating a copy of the report to show needed factual and technical corrections;
- developing a DoD position on each finding and recommendation contained in the attached summary. (Please note that some of the recommendations are the same as those addressed in the GAO final report on the overall Corporate Information Management initiative--OSD Case 9652--for which the proposed response is currently being developed by Ms. Sally Brown, OASD(C3I), 703-614-0301);
- holding an internal DoD meeting (premeeting) to review, discuss, consolidate, and--if necessary-resolve any disagreements on the DoD positions;
- holding a meeting with the GAO to provide DoD official oral comments--which ensures the DoD complies with the statutory 30-day comment period for draft reports; and
- finalizing the written comments.

Even though official DoD comments are presented orally on a draft report, it is DoD policy to follow with written its comments. In addition, when preparing the written comments, please do not use any abbreviations or acronyms--except for "DoD," "GAO," "FY," and "U.S."

The collateral action office input is due to your action officer by June 17. The DoD proposed response and the annotated report copy should be provided to this office the day prior to the premeeting, which is scheduled for Thursday, June 23, 1994, 10:00 A.M., 400 Army Navy Drive, Room 800. The GAO meeting is scheduled for Monday, June 27, 1994, 10:00 A.M., 400 Army Navy Drive, Room 642.

Adherence to the described schedule should allow sufficient time for the final DoD written response to be coordinated and submitted to the GAO in time to be published as an appendix to the final report. The time schedule is critical—if we are to release the signed response to the GAO in time for it to be included in the final report.

A reminder--all General Accounting Office draft documents remain the property of the GAO. They may be recalled by the GAO at anytime. Under no circumstances are DoD staff to show or release the contents of the draft document outside the DoD. Within the Department, the information in the draft should be limited to those with a legitimate concern. The GAO draft information must always be safeguarded to prevent inadvertent publication or other improper disclosure. (Those same safeguards are applicable to the DoD response to the GAO draft.)

Questions may be directed to my action officer for this case, Ms. Ann M. Collins. If she is not available, please contact Ms. Mary E. Geiger. Both can be reached on the same number-703-693-0208.

Lorraine F. Carpénter
Director for GAO Reports Analysis

Enclosures

Copies for CAOs: SEC ARMY COMP, DOD DIR, DISA SEC NAVY ASD(C31) DIR, DLA

SEC ATE FORCE

SEC AIR FORCE

Info Copies: CMDT, USMC USCINCLANT USCINCSPACE

ASD(LA) USCINCCENT USCINCSO ATSD(PA) USCINCEUR USCINCSTRAT DGC(F) USCINCPAC USCINCTRANS

DIR, JS USCINCSOUTH

#### GAO DRAFT REPORT - DATED MAY 27, 1994 (GAO CODE 398141) OSD CASE 9660

"DEFENSE MANAGEMENT: IMPEDIMENTS JEOPARDIZE LOGISTICS CORPORATE INFORMATION MANAGEMENT"

FINDINGS AND RECOMMENDATIONS TO BE ADDRESSED IN THE DOD RESPONSE TO THE GAO DRAFT REPORT

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#### FINDINGS

FINDING A: Corporate Information Management Initiative. The GAO noted that the Corporate Information Management initiative was launched in 1989 as a way to improve such business operations as procurement, finance, and logistics. The GAO reported that the Defense Management Report estimated that the initiative could save the DoD about \$71.1 billion. The GAO pointed out that, although initially an effort to standardize automated information systems across the Department -- today, the primary objective of the Corporate Information Management was to make significant improvement in DoD business processes through such techniques as business process reengineering and continuous process improvements. The GAO reported the DoD expected that the Corporate Information Managementrelated improvements to logistics functions would provide three-fourths of the projected cost savings under the Corporate Information Management Initiative ...

The GAO reported that, to implement the Corporate Information Management effort, the DoD directed senior officials within the Office of the Secretary of Defense-i.e., the Principal Staff Assistants -- to develop a "corporate" view of their assigned functional areas and to identify, through a process known as business process reengineering, major improvements to current business practices. The GAO pointed out that, at the same time, Military Service and Defense Agency managers were directed to take a bottoms-up look to identify and implement business process improvements having service-wide or agencywide application. The GAO also pointed out that, to assist in identifying and implementing major improvements in materiel management and depot maintenance, the DoD established the Joint Logistics Systems Center. GAO explained that the Center was staffed with personnel

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from the Military Services and the Defense Logistics Agency—and relies on the active participation of the Services and Defense Logistics Agency to accomplish its Corporate Information Management efforts. (pp. 3-4, pp. 12-19/GAO Draft Report)

PINDING B: Joint Logistics Systems Center Selected and Deployed Near-Term Initiatives. The GAO observed that, in March 1992, the Joint Logistics Systems Center identified 20 improvement projects--15 in material management and 5 in depot maintenance--that were termed near-term initiatives and projected that implementation would save the Military Services more than \$2 billion over a 5 to 20 year period. The GAO explained that the projects were selected because the projects could make current business processes more efficient and effective and could be quickly implemented at a few Service and Defense Logistics Agency sites to achieve quick cost savings.

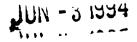
The GAO further observed that, as of October 1993, the Joint Logistics Systems Center had begun implementing seven of the nearterm initiatives (five materiel management and two depot maintenance). The GAO reported that the Center claimed savings of at least \$7.7 million and located previously lost or unaccounted Government assets worth about \$12.7 million. The GAO reported that, although additional savings might have accrued, the Center had not yet validated all cost and benefit projections. The GAO noted that, before the Center could implement the remaining 13 nearterm initiatives, DoD officials questioned the viability of the near-term strategy and redirected the implementation approach to Corporate Information Management. The GAO pointed out the following two examples of the seven nearterm initiatives that have been implemented.

- Cataloging Tools On-Line - The GAO reported that the Cataloging Tools On-Line initiative was a materiel management productivity aid for DoD catalogers. The GAO noted that, when the DoD introduces a new supply item into inventory, the item is listed in a catalog provided to the Military Services and the Defense Logistics Agency. The GAO also noted that, currently, catalogers used paper technical drawings, specifications, vendor catalogs, guidebooks, procedural manuals, and regulations to complete cataloging steps--such as writing a brief description of the supply item, making drawings, and assigning a stock number.

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The GAO observed that Cataloging Tools on-Line, a Defense Logistics Agency system, enables the cataloger to access reference documents electronically, simultaneously compare technical data with drafted descriptions, and automatically check for errors. The GAO pointed out that catalogers using this automated aid are expected to create catalog entries much faster and more accurately than is currently done. The GAO reported that the Joint Logistics Systems Center projects that the 10 new sites receiving the Cataloging Tools On-Line system will save about \$74.5 million over the next 8 years through the elimination of manual processes, reduced rejection rates of ordered items, and better availability of and access to maintenance information.

Hazardous Material Management System -- The GAO reported that the depot maintenance initiative was intended to reduce the amount of money maintenance depots spend for hazardous materials-such as paint thinner, oils, and chlorine. GAO observed that, currently, the depots spend more than \$300 million each year to buy hazardous materials used in the repair and maintenance of end items; however, officials acknowledge that a significant portion of the materials was being wasted. The GAO noted that, to provide information about who received hazardous materials, to provide information about who received hazardous materials in 1992, the Air Force implemented the Hazardous Material Management System at the Ogden Air Logistics Center--which system tracked how much was received -- and when, where, and how the materials were used. With that information, the GAO found Ogden managers identified wasteful practices, such as workers receiving more material than needed. The GAO also pointed out that workers were storing excess material in lockers and that stored materials were being improperly sealed. The GAO observed that depot management subsequently changed the methods for handling hazardous materials. The GAO asserted that, as a result, Ogden reduced the amount of hazardous materials purchased in 1992 by nearly 39 percent, or a \$7.7 million net cost savings. The GAO added that the Joint Logistics Systems Center planned to install the Hazardous Material Management System at 27 maintenance depots and projected



between \$83.3 million and \$202.3 million would be saved over a 6-year period. The GAO noted that, as of September 1993, the systems had been installed at seven sites. (pp. 21-24/GAO Draft Report)

FINDING C: Joint Logistics Systems Center Directed to Refocus on a Migration Strategy. The GAO reported that, in October 1992, the Acting DoD Comptroller expressed concern that the Joint Logistics Systems Center Corporate Information Management approach would not produce the cost savings needed to help offset significant Defense budget reductions. The GAO asserted that the Comptroller favored an approach where the Center would quickly select and implement standard information systems. The GAO pointed out that, by so doing, the Comptroller hoped that the DoD could transition to a standard logistics system within a reasonable period of time at an affordable cost. The GAO noted the Comptroller recommended that the Center immediately select a functionally and technically integrated information system for each of the materiel management and depot maintenance business areas--from those being operated by one of the services and the Defense Logistics Agency.

The GAO also reported that, in November 1992, the Principal Staff Assistant for logistics issued the Logistics Corporate Information Management Migration Master Plan. The GAO noted the plan established the selection of migration systems as the Corporate Information Management implementation strategy within the logistics area. The GAO pointed out that, as a result, the Joint Logistics Systems Center shifted focus from implementing the near-term initiatives to selecting migration systems for material management and depot maintenance. The GAO observed, however, that the Center continued to implement the seven already-started projects and incorporated the remaining 13 projects into the analysis it used to select the migration systems.

The GAO further reported that the Joint Logistics Systems Center also developed a three-step strategy designed to evolve, on a gradual basis, the Military Services and the Defense Logistics Agency from their multiple and often redundant material management and depot maintenance business practices to a single, or corporate, DoD logistics process. The GAO explained that the three steps were:

 select and deploy migration systems—either single information systems or groups of information systems—in each functional area;

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Attachment to Memo--GAO

Draft Report--OSD Case 9660

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- improve current business processes and add new functions to fill voids; and
- combine the improved and new business processes with the new information systems to form a corporate logistics process.

The GAO concluded that, once the selected migration systems are deployed (step one of the strategy), the Center planned to work with the Military Services and the Defense Logistics Agency to add needed functions and make incremental improvements to logistics business processes (step two). The GAO continued that developing a corporate logistics process (step three) is where the Center expects to use such tools as reengineering to identify and implement major and innovative changes in the logistics area. The GAO noted that, according to the DoD, the vast majority of cost savings was most likely to occur in step 3.

The GAO reported that, in October 1993, the Deputy Secretary of Defense, directed that senior Defense managers accelerate the selection and deployment of migration systems. The GAO noted that the Secretary established a 6-month deadline for selection of migration systems and a maximum of 3 years for DoD-wide transition to the systems. The GAO pointed out that, because the migration strategy would take 7 to 8 years to complete--longer than the maximum set by the Deputy Secretary--in March 1994 the Deputy Under Secretary of Defense for Logistics proposed changing the management structure and mission of the Center. (pp. 5-6, pp. 24-26/GAO Draft Report)

FINDING D: Logistics Corporate Information Management Migration Strategy Runs Counter to Most Expert Advice. The GAO explained that most industry experts who have studied the Corporate Information Management initiative have found that the DoD migration system strategy focuses too much on improving automated information systems rather than reengineering business practices. The GAO indicated the experts contended that reengineering offers the DoD the best opportunity to move to a new plateau of performance, while improving information systems usually results in the automation of old, inefficient ways of doing business.

The GAO reported that view was first articulated by the Executive Level Group back in October 1989, when the Corporate Information Management was initiated. The GAO explained the group noted that the DoD viewed information

management as merely automating existing business methods in order to cut costs and the group recommended that the DoD adopt a new management philosophy that emphasized continuous improvement of business methods before identifying specific computing and communications technologies. (pp. 27-28/GAO Draft Report)

Business Process Improvements. The GAO reported DoD officials recognize that reengineering logistics practices is the key to obtaining the vast majority of Corporate Information Management benefits. The GAO noted that, in the Logistics Corporate Information Management Migration Master Plan, the DoD recognized that the selection and implementation of migration systems was a critical first step toward business process improvement, since the systems provided needed quick cost recoveries and established a common business environment to reengineer business processes.

The GAO further reported that, according to the Joint Logistics Systems Center, the Service Secretaries and other DoD managers were concerned about projections that the reengineering of logistics business processes would take 10 years or more to complete. The GAO asserted that, given the amount of funding stripped from the FY 1993 through FY 1997 Defense budgets as a result of multiple Defense Management Review savings targets, the Service Secretaries asked the DoD Comptroller to come up with another technique for getting more immediate cost savings. The GAO concluded that the request was the genesis for the concept of standardizing information systems for use across the Department.

The GAO indicated that, according to DoD officials, the vast number of different logistics processes and supporting information systems in the DoD must be reduced before significant improvements could be made. The GAO concluded that the Joint Logistics Systems Center supported the migration system concept as a necessary tool to eliminate multiple information systems supporting the same business functions. The GAO further concluded that, according to the Center's migration plan, migration systems would form the foundation upon which significant improvements to current logistics practices—estimated to result in a total of \$16 billion in savings by 2005—could be made. (pp. 29-30/GAO Draft Report)

- The GAO expressed several concerns about the strategy of selecting migration systems as a necessary first step in the reengineering process.
  - The GAO is concerned because those familiar with reengineering techniques that have studied the Corporate Information Management initiative believe the DoD focus on standardizing information systems first will delay significant process improvements. The GAO concluded that, as a result, changes will be marginal and cost savings will not approach what the DoD needs in the face of shrinking budgets.
  - The GAO is concerned that the DoD effort to select and implement migrating systems in 3 years raises a new dimension of risk to the Corporate Information Management process. The GAO concluded that, without some flexibility in the schedule, the Military Services and the Defense Logistics Agency might have to implement migration systems even if the systems are not yet capable of meeting their needs. The GAO noted that, nevertheless, the Joint Logistics Systems Center holds that the accelerated migration system schedule was what the Corporate Information Management initiative needed.
  - The GAO is concerned that some Defense Logistics
    Agency managers also believe that the Corporate
    Information Management, in general, and the Joint
    Logistics Systems Center focus on migration systems,
    in particular, is affecting the ability to implement
    business process improvements. As an example, the
    GAO cited the Defense Logistics Agency attempt with
    some innovative pilot projects to find better, more
    efficient ways of doing business—outside the
    Corporate Information Management umbrella. The
    GAO concluded that, if the concepts prove successful, the Defense Logistics Agency will significantly reduce inventories and might eventually
    eliminate supply depots. (pp. 5-6, pp. 31-33/
    GAO Draft Report)
- FINDING G: Joint Logistics Systems Center Has Selected Migration Systems. The GAO reported that, during 1993, the Center selected 27 migration systems from among 200 information systems being used to support major materiel management and depot maintenance business processes-

as directed by the DoD and in cooperation with teams of Military Service and Defense Logistics Agency experts. The GAO explained that, prior to the selection of the systems, each Military Service and the Defense Logistics Agency was given the opportunity to identify the system (or combination of systems) used to support the logistics business area. The GAO noted that Service and Defense Logistics Agency experts for materiel management and depot maintenance presented the candidate systems in an open forum for consideration -- which included detailed information on (1) the system capabilities, (2) the system interfaces with other logistics systems, and (3) other information-such as cost, benefit, and technical data. The GAO noted that the Service, Defense Logistics Agency, and Center representatives came to consensus on the selection of 27 candidate systems--24 for material management and three for depot maintenance--which were later approved by the Deputy Under Secretary of Defense for Logistics.

Materiel Management Migration Systems—The GAO observed that the 24 migration systems selected for materiel management support the four major materiel management business processes—i.e., (1) asset management, (2) item introduction, (3) preprocurement, and (4) requirements determination—together, form the Materiel Management Standard System. The GAO noted that the Center planned to test the combined system at one site—the Marine Corps Logistics Base, Albany, Georgia—beginning in January 1995—and, upon successful completion of the test, the Center planned to assist the Military Services and the Defense Logistics Agency in implementing the standard system at additional sites.

The GAO reported that, as of September 1993, on the basis of a preliminary functional economic analysis, the Joint Logistics Systems Center prosjected that improved business processes and reductions in the number of systems would help the Military Services and the Defense Logistics Agency recover as much as \$12 billion over the 10-year period ending in FY 2005. The GAO noted the Center cautioned that it is a "first look" at potential savings; however, the Materiel Management Standard System would eventually result in numerous improvements to material management business processes—primarily because it incorporates general business

improvements from Defense initiatives such as the Defense Management Review, prior Corporate Information Management efforts, and a compilation of "best practices" identified in numerous DoD, Service, and Defense Logistics Agency initiatives.

- Depot Maintenance Migration Systems -- The GAO reported that the three migration systems selected for depot maintenance supported the two major depot maintenance business processes of (1) maintenance management and (2) shop floor industrial processes. The GAO explained that the three migration systems, along with a system not yet selected, together form the Depot Maintenance Resource Planning System. The GAO pointed out that the Center planned to test the combined system at the Warner-Robbins Air Logistics Center beginning in January 1995. The GAO noted that, upon successful completion of the test, the Center planned to assist the Military Services and the Defense Logistics Agency in implementation of the new system at additional sites. The GAO reported that, on the basis of a preliminary functional economic analysis completed in January 1994, the Center expected that improvements to depot maintenance processes and reductions in the number of systems would help the Services and the Defense Logistics Agency recover as much as \$4 billion over the 10-year period ending in FY 2003; this estimate assumed a 7-year implementation period, not the 3-year period mandated by the DoD. (pp. 4-5, pp. 34-37/GAO Draft Report)
- FINDING H: Joint Logistics Systems Center Has Begun Preliminary Work For Improving Business Processes. GAO reported that, while it facilitated the selection of migration systems under the first step of its Corporate Information Management implementation strategy, the Joint Logistics Systems Center also took preliminary steps to identify how current materiel management and depot maintenance business processes could be improved. The GAO noted that, as of September 1993, the Center had developed models documenting 484 logistics practices used by the Military Services and the Defense Logistics Agency to accomplish materiel management and depot maintenance activities. The GAO observed that Service and Defense Logistics Agency officials were now analyzing the Center models (1) to further define the current business environment, (2) to establish business requirements and (3) to identify the best business practices. The GAO concluded

that, when completed, the models will form a basis for understanding and discussing logistics processes, evaluating the effectiveness, and identifying opportunities for improvement; and help reengineer business processes, control evolution, integrate new technologies, and communicate new functions of reengineered business processes. (pp. 5-6, pp. 37-38/GAO Draft Report)

FINDING I: Joint Logistics Systems Center Reduced Budget Requests For Information Systems. The GAO reported that, as part of the Corporate Information Management strategy, the [former] Assistant Secretary of Defense (Production and Logistics) gave the Center review authority over the Services and the Defense Logistics Agency budget requests for development of new materiel management and depot maintenance information systems. The GAO noted that, under such authority, the Center was to identify funding that could be eliminated from a funding request for any information system development project duplicating a project or operational system of another service. The GAO observed that the Center reviewed the budget requests and justifications for FY 1993 project funds and compared the proposed new information systems to those (1) already existing or being developed by other services and (2) selected by the Center as near-term initiatives. The GAO pointed out, that the Center reduced the requests for FY 1993 funding by \$22.7 million--or about 36 percent. The GAO noted that, in 1993, the Center performed the same type of analysis on FY 1994 budget requests from the Services and the Defense Logistics Agency. The GAO reported that the Center reduced FY 1994 funding requests by \$320.6 million--or about 96 percent.

The GAO pointed out that, according to Center officials, the reduction of the requests might not directly equate to cost savings of the same amount because (1) the requests could have been overstated, (2) the requested funds might not have been approved by the DoD under the traditional budget process, and (3) the Military Services or the Defense Logistics Agency might have received funding for the projects through other budget submissions. The GAO observed the Joint Logistics Systems Center indicated that type of drastic reduction in budget authority can be sustained only for a short period of time--2 or 3 years. The GAO pointed out that, according to the Center Commander, the downsizing of the DoD had resulted in the Services and the Defense Logistics Agency having fewer people to run current business processes. The GAO further pointed out that, over

the short term, the situation can be managed-however, it cannot be sustained over the longer term-that either more people would have to be used or the processes would have to be made more efficient. (pp. 6-9, pp. 38-41/GAO Draft Report)

FINDING J: DoD Officials Have Not Fully Accepted Corporate Information Management. The GAO reported that independent studies had shown that, for major improvement initiatives (such as Corporate Information Management) to succeed, all employees must understand and accept the changes being made. For example, the GAO noted that in a July 1993 report the Information Technology Association of America found that the full commitment of all organization members to the improvement effort was of greatest importance to successful implementation. Similarly, the GAO pointed out that the Policy Analysis Center of the Institute of Public Policy, in a November 1993 report, Functional Process Improvement Implementation: Public Sector Reengineering, found that even the best constructed improvement plans were likely to fail unless employees were involved at all stages of the reengineering effort.

The GAO noted that the Center, recognizing that "buy in" was a critical success factor, took actions to involve the Services and the Defense Logistics Agency in implementing Corporate Information Management. The GAO observed that, although more than 250 logistics personnel from the Military Services and the Defense Logistics Agency were brought together to work at the Center and the Center tried to maintain a continual dialogue with responsible managers for Defense logistics, Center officials had encountered a strong institutional bias against the changes posed by Corporate Information Management—primarily because managers viewed the changes as a threat to their authority over logistics business decisions. The GAO concluded that the lack of acceptance had slowed the implementation of Corporate Information Management.

The GAO asserted that resistance to the Corporate Information Management initiative was not limited to the Joint Logistics Systems Center efforts. The GAO noted that the DoD Inspector General, in a report entitled, <u>Defense Corporate Information Management Initiative, Program Evaluation</u> (January 1993), concluded that the lack of consensus and support for the overall Corporate Information Management initiative by DoD managers was severely hampering implementation. The GAO further noted that the

Inspector General attributed the lack of support to the absence of an overall Corporate Information Management plan that was clearly presented to, and understood by. the managers.

The GAO observed that, on October 13, 1993, the Deputy Secretary of Defense issued a memorandum that re-emphasized top-level support for Corporate Information Management and required senior managers to take specific actions within established milestones to help implement the initiative. The GAO concluded that the memorandum might be a a first step toward gaining acceptance of Corporate Information Management; however, by itself, would not overcome manager resistance.

The GAO concluded that obtaining support and commitment from Defense managers might require a name change. The GAO pointed out that the Corporate Information Management is much more than an information technology initiative because many DoD managers perceive it as either a budget-cutting initiative or an effort to standardize information systems. The GAO observed that, consequently, it is not seen as an initiative deserving of support-most managers do not want budget cuts and are more comfortable with the existing systems than a comparable system from another service. (pp. 6-9, pp. 43-46/GAO Draft Report)

FINDING K: Corporate Information Management Efforts Remain Isolated From One Another. The GAO reported that, in draft Corporate Information Management guidance dated January 1993, the DoD recognized that no Defense function can be accomplished in isolation from other functions. The GAO observed, for example, that improvements to weapon systems management could cut across several business area—including logistics, finance, and procurement. The GAO pointed out that, consequently, when trying to improve Defense functions, it is important to address all related business areas.

The GAO found that Corporate Information Management improvements were, to a great extent, being made in isolation from one another. The GAO indicated that, according to Joint Logistics Systems Center officials, there was continual overlap of issues across the different DoD business areas. The GAO concluded that the integration requirements of the related business areas had not been identified and established—or was any one office responsible for overseeing the integration of Corporate Information Management

National Security and International Affairs Division

MAY 2 7 1994

The Honorable William J. Perry The Secretary of Defense

Attention: DOD Office of the Inspector General

Director for GAO Reports

Dear Mr. Secretary:

Enclosed for your review and comment are 40 copies of our draft report on the Department of Defense's cultural changes needed if corporate information management is to succeed (GAO code 398141).

In accordance with 31 U.S.C. 718(b), you have 30 days from the date of this letter to provide us with your comments on this report. An extension may be granted by the Comptroller General if the head of the agency shows that (1) a longer period is necessary and (2) the extension is likely to result in improved accuracy of the report. Written comments are preferred, but oral comments are acceptable, provided your designee speaks officially for the Department. Please have your representative inform Mr. James Hatcher, Assistant Director, Defense Management and NASA Issues on (202) 512-8412 within 15 days of the date of this letter whether written comments will be provided or further information is desired. If written comments will not be provided, a meeting can be arranged to obtain oral comments before the end of the 30-day period.

We call your attention to the notice stamped on the cover of the draft report regarding limitations on the use of the draft report and the need for safeguards to prevent its premature or unauthorized use.

Sincerely yours,

Frank C. Conahan Assistant Comptroller General

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BRAFT REPORT

30- DAY OFFICIAL COMMENTS

### DEPARTMENT OF DEFENSE (DoD) PROCEDURES FOR PROCESSING GENERAL ACCOUNTING OFFICE (GAO) DRAFT REPORTS

- 1. Receipt of Draft Report. A GAO survey/review usually results in the issuance of a report. In some cases, the GAO submits drafts of its DoD-related reports to the Department for comment prior to issuing the final report. There are, however, many exceptions to this practice. For example, on a congressionally initiated review, a member of Congress may specifically direct the GAO not to obtain DoD comments. Even on self-initiated assignments, if the final product will be either a report or Blue Cover Fact Sheet, the GAO will sometimes elect not to submit a draft for comment. (The DoD, however, continues to encourage the GAO to submit its draft reports for comment, whenever possible.) When GAO draft reports are submitted for comment, they are addressed to the Secretary of Defense, Attention: Deputy Assistant Inspector General for GAO Report Analysis, Office of the Defense Inspector General (DoD/OIG). In turn, they are tasked to the appropriate DoD components. When a draft report is received, it will indicate the GAO assignment code number under which the audit work was done. The related survey/review is pulled and merged with the draft report and the DoD assigns a 4-digit OSD case number. The case is subsequently identified and filed by the 4-digit number. Once a report is issued, it should always be identified by the OSD case number.
- 2. Draft Report Restriction. Draft reports remain the property of the GAO. On demand, they must be returned to, the GAO. Distribution is, therefore, restricted. Recipients of draft reports must not show or release the contents for purposes other than official review and comment. At all times drafts must be safeguarded to prevent duplication or other improper disclosure of information contained therein. Duplication of draft reports is to be avoided. If a report must be reproduced, a record should be made of the number of copies than were made, and to whom they were distributed. All copies of draft reports must be retained until the final report is issued--at which time excess copies can be destroyed. Again, the file should note the destruction of the draft reports.
- 3. DoD Time To Comment. By statute, the DoD has up to 30 calendar days to comment on a GAO draft report (assuming the report is submitted for comment). The GAO generally allows the full 30 days, but on occasion a shorter comment period is required, usually to meet a congressionally imposed deadline. In addition to preparing written comments, to assure compliance with the 30-day statutory requirement, the DoD always schedules a meeting with the GAO to present its official comments orally.
- 4. Tasking of Draft Report: Preparation of Response. Upon receipt of a draft report, the OIG Office of GAO Report Analysis determines the primary action office (PAO) and appropriate collateral action offices (CAOs). The PAO has usually been previously determined during the underlying survey/review. The PAO (with rare exception) is a component of the Office of the Secretary of Defense (OSD). (An advance copy of the draft report is sent to the PAO and the CAOs immediately upon receipt to permit the action officers to familiarize themselves with the draft report content, pending receipt of the tasking memorandum.) A summary of the findings and any recommendations contained in the draft report is then prepared and forwarded to the PAO and the CAOs, along with the tasking memorandum, through the appropriate audit limison offices. The tasking memorandum sets forth scheduled dates for the various tasks associated with the processing of the draft report. The DoD Directive 7650.2 requires the PAO to (a) review the draft report, (b) obtain input from the CAOs, and (c) prepare a proposed response on behalf of the Secretary for OSD-level coordination and clearance prior to release to the GAO. Once the draft report is issued, all GAO contact related to the draft report is through the DoD/OIG, Office of GAO Report Analysis action officer. No meetings are to be held with the GAO, or written comments provided to GAO, other than those officially authorized/coordinated by the DoD/OIG. There are to be no separate meetings with individual components to discuss the draft report.
- 5. Meeting Arrangements. Within a couple of days after receiving the GAO draft report tasking memorandum, the PAO action officer should contact the designated OIG action officer to arrange for two meetings:
  - Premeeting. In each case, usually a couple of days prior to the meeting with the GAO, an internal DoD meeting (premeeting) is scheduled. The objective of the premeeting is to provide an opportunity for the DoD/OIG to review the DoD position on each finding and recommendation to assure it is well founded and fully responsive. A draft of the written response must be available at the premeeting (see item 11). If a copy of the draft comments can be provided to the DoD/OIG action officer at least one day before the premeeting, the premeeting review process can be expedited. Problems and needed clarifications can generally be resolved at the premeeting, prior to the meeting with the GAO. If, however, disagreements cannot be worked out at the action officer level, the unresolved issues are elevated to a higher level. The DoD/OIG action officer will not proceed with the GAO meeting until he/she is satisfied that the DoD is fully prepared. Representatives of the PAO, the CAOs and the DoD/OIG attend the premeeting. (It is the responsibility of the PAO to advise the CAOs of the premeeting arrangements.)
  - e GAO Meeting. The meeting with the GAO should be held about the 19th or 20th calendar day after receipt of the GAO draft report by the DoD. The DoD/OIG action officer is responsible for the conduct of the meeting. The PAO representative, however, acts as the spokesperson for the DoD and orally presents the official DoD positions. Representatives of the CAOs also attend with the GAO (provided they attended the premeeting), and participate, as requested by the PAO representative. A draft of the written response must be available at the GAO meeting.

- 10. Written Response Format. Generally, the DoD response to the GAO draft report should consist of a cover letter, with detailed comments on the findings and recommendations (if any) as an enclosure.
  - The cover letter should be addressed to the GAD official who signed the letter transmitting the draft report to the DoD.
  - The first paragraph of the cover letter should state that it is the Department of Defense response and identify the report title, report date, GAO code number and OSD case number.
  - The cover letter should be relatively short--usually no more than two pages--providing the
    overall Department position, discussing key issues, explaining any significant disagreement,
    and/or setting forth general observations, as may be appropriate. The cover letter should also
    specifically refer to the enclosure for the detailed DoD comments.
  - The enclosure to the cover letter should fully state each finding and recommendation (if any)
    listed in the OIG tasking memorandum, with the DoD position immediately following each item.
    The DoD position on each item must begin by specifically stating whether the DoD concurs,
    announcers or partially concurs.
  - The purpose of the DoD response, whether oral or written, is to provide an official Department position on the various issues raised in the report. The DoD should not try to rewrite the GAO report, although it should identify needed technical/factual corrections. (Report pages that require such corrections should be annotated and separately presented at the GAO meeting. Usually, technical corrections are not the focus of the written response, itself.) The response should reflect the official Department position not that of a particular component or individual. Therefore, it should not indicate that a specific component either agrees or disagrees with a DoD position, or use personal pronouns. Instead, please state "It is the DoD position...," or "The DoD concurs...., etc."
  - e Extranejus remarks that do not contribute to the substance of the response should be avoided.
  - The CAO written input to the PAO should be in this same format to facilitate consolidation and final development of the proposed DoD response.
- 11. Written Response Due Date. As stated in item 3, by statute, the DoD has up to 30 days to comment on a draft report. Presentation of official oral comments by the 30th day ensures that the GAO will consider the DoD positions and present them in an "Agency Comments" section of the final report. Issuance of the signed written response by the 30th day will usually ensure that the GAO will print it as an appendix in the final report. Sometimes, depending on the review and printing schedule of the final report, written responses that are a few days late are still accepted and included in the final report. After the 30-day deadline has expired, however, the GAO is not obligated to accept the DoD written comments and print them in the final report. Every effort should be made to complete the written response in time for it to be printed in the final report. This assures that the DoD position is available to anyone reading the report. It also makes responding to the final report a simple procedure (unless there are major rebuttals).
  - e As described in item 4, a draft of the DoD response should be available for the premeeting and be in almost final form by the time of the GAO meeting (including any changes resulting from the premeeting)--usually about the 19th or 20th day after receipt of the draft report by the DoD.
  - e The proposed written response should be finalized within 3 days after the GAO meeting (about the 22d or 23th day) and ten (10) copies submitted to the DoD/OIG, Office of GAO Report Analysis action officer for review and OSD-level coordination.
- 12. OIG Review of Proposed Response. The DoD/OIG, Office of GAO Report Analysis action officer review of the proposed DoD response begins when draft comments are discussed at the premeeting. Any problem will usually surface fairly early and efforts will be made to resolve questions on an informal basis. If the proposed written response submitted for coordination still presents a problem, and informal resolution efforts have been unsuccessful, a memorandum is prepared identifying the questions or concerns and requesting the PAO to revise the proposed response. While this makes it unlikely that the written response will be issued in time for inclusion in the final report, the quality of the DoD response is the major concern. If a significant problem or controversy continues, a written response will not be released on the draft report.
- 13. Issues On Which There Is Disagreement: Resolution. On occasion, a GAO draft report will deal with an issue(s) on which there is a major disagreement between or among DoD components, which cannot be settled at the action officer level. When this occurs, the DoD/OIG will elevate the issue within the cognizant DoD components. This may be done formally or informally, depending on the particular case. If resolution still cannot be accomplished, the DoD Inspector General will formally submit the matter to the Secretary of Defense for a decision. Where an issue is unresolved, the response to the draft report is either not released or, if the disagreement involves only one of several issues, a partial response is released.

business process improvements across the areas. The GAO maintained that, while the Joint Logistics Systems Center was unofficially recognized within the DoD as a Corporate Information Management intestator and did maintain liaisons with offices responsible for efforts in finance and procurement, the Center does not have the authority to arbitrate disputes between the Corporate Information Management efforts or enforce integration decisions.

The GAO reported that the DoD, recognizing the need to integrate Corporate Information Management efforts, established a number of boards and councils -- such as the Information Policy Council and the Corporate Functional Integration Board--to facilitate integration. The GAO concluded, however, that the efforts had not succeeded. The GAO noted that, in March 1994, the DoD proposed a management forum-the Enterprise Integration Executive Board, chaired by the Deputy Secretary of Defense--to resolve cross-functional integration issues. The GAO explained that the forum would exchange information and views about cross-functional management concepts, policies, and plans to achieve Corporate Information Management goals with the membership made up of DoD senior-level managers, Service Secretaries, and the Chairman of the Joint Chiefs of The GAO concluded that, while the Board had the membership needed to achieve seniorlevel consensus on crossfunctional and integration issues, its success depended on the level of interest and commitment from the Board members. (pp. 6-9, pp. 47-50/GAO Draft Report)

FINDING L: Program Authority Is Unclear. The GAO reported that, with the establishment of the Joint Logistics Systems Center, the DoD created two separate lines of authority for managing the development of logistics information systems:

(1) DoD Directive 5000.1, Defense Acquisition, and DoD Directive 5000.2, Defense Acquisition Management Policies and Procedures, which grant Service program managers sole authority for managing the assigned programs, and (2) under authority granted by the [former] Assistant Secretary of Defense (Production and Logistics), the Center was to manage the design, development, implementation, and maintenance of logistics information systems and to exercise funding control over the acquisitions.

The GAO noted that the dual authority had resulted in dissension between the Joint Logistics Systems Center and program offices about which office had overall authority for the development and implementation of information

systems. The GAO further noted that the existence of two separate and conflicting lines of authority for project management of logistics information systems development exemplifies the DoD failure to establish the management structure needed for Corporate Information Management to succeed. The GAO pointed out private industry and GAO studies show a strategic plan that clearly articulated responsibilities and described how the initiative fits with other organizational priorities was critical to the success of initiatives like Corporate Information Management (OSD Cases 8677, 9235, and 9652).

The GAO stated that, in late 1993, a Defense review group found that current program management direction divided the responsibility and accountability for developing Corporate Information Management migration systems. The GAO noted that, according to the review group, the core issue was the need to "minimize management layering and delegate review and milestone approval authority commensurate with the resources and risks involved." The GAO also noted that the group identified four options for assigning Corporate Information Management responsibilities to a particular organizational unit or senior DoD manager. The GAO concluded that, while the options might address the immediate case of conflicting authority, the DoD must establish clear lines of program management authority and accountability establishing Corporate Information Management priority within other Department priorities. (pp. 6-9, pp. 50-52/ GAO Draft Report)

#### RECOMMENDATIONS

- RECOMMENDATION 1: The GAO recommended that, in order to overcome the fundamental weaknesses in the Corporate Information Management initiative, as demonstrated by the impediments to the Joint Logistics Systems Center progress, the Secretary of Defense take actions to encourage cultural changes supporting the new Defense business operations. (p. 9, p. 54/GAO Draft Report)
- RECOMMENDATION 2: The GAO recommended that the Secretary of Defense ensure the expeditious development of a management strategy with well-defined roles and authorities (a) to manage the Corporate Information Management initiative and (b) to gain the mutual commitment and support of

the services and the Defense Logistics Agency needed to overcome cultural barriers that are deeply entrenched in the DoD. The GAO explained that the strategy should include the following:

- establishing a Chief Information officer; and
- creating a committee or board that includes the Deputy Secretary of Defense, the Service Secretaries, Principal Staff Assistants, and the Chief Information officer. (p. 9, p. 54-55/ GAO Draft Report)
- ensure the development of a cohesive, complete strategy to guide the Corporate Information Management implementation and integration. The GAO pointed out that, building on past recommendations and plans, such strategy should (a) clearly articulate the goals and objectives of the Corporate Information Management initiative, (b) identify major tasks to be performed and the resources needed, (c) define responsibilities and authority for completing tasks, and (d) prescribe milestones for Corporate Information Management implementation. (p. 9, p. 55/GAO Draft Report)
- RECOMMENDATION 4: The GAO recommended that the Secretary of Defense direct the Principal Staff Assistants to establish Corporate Information Management implementation plans for their functional areas--plans that are consistent with the overall Corporate Information Management strategies, goals, and objectives. The GAO observed that the plans should include performance measures (a) to evaluate progress, (b) to assess current operations and reengineered processes, and (c) to identify costs and benefits derived from improved business practices and supporting information systems. (p. 9, p. 55/GAO Draft Report)
- RECOMMENDATION 5: The GAO recommended that, to ensure the full commitment and support of all members of DoD to the successful implementation of Corporate Information Management, the Secretary of Defense train DoD employees (at all levels) to promote understanding and acceptance of changes needed to their current ways of doing business. (p. 9, pp. 55-56/GAO Draft Report)

• RECOMMENDATION 6: The GAO recommended that, to ensure the full commitment and support of all members of the DoD to the successful implementation of Corporate Information Management the Secretary of Defense change the name of the Corporate Information Management initiative to (1) lessen the confusion that has been created as the initiative has evolved and (2) more accurately communicate the primary objective of the initiative. (p. 9, p. 56/GAO Draft Report)

**GAO** 

# Draft Report

Report to the Chairman, Committee on Governmental Affairs, United States Senate

JUNE 1994

**DEFENSE MANAGEMENT:** 

Impediments Jeopardize Logistics Corporate Information Management

Notice: This draft is restricted to official use. This draft report is being provided to obtain advance review and comment from those with responsibility for the subjects it discusses. It has not been fully reviewed within GAO and is, therefore, subject to revision.

Recipients of this draft must not, under any circumstances, show or release its contents for purposes other than official review and comment. It must be safeguarded to prevent publication or other improper disclosure of the information it contains. This draft and all copies of it remain the property of, and must be returned on demand to, the General Accounting Office.

OSD CASE #\_\_\_\_

B-XXXXXX

June 15, 1994

The Honorable John Glenn Chairman, Committee on Governmental Affairs United States Senate

Dear Mr. Chairman:

This report was prepared in response to your request that we review implementation of the Department of Defense's Corporate Information Management (CIM) initiative. It focuses specifically on progress made to improve the logistics functions of material management and depot maintenance under the CIM initiative and identifies impediments to further progress.

We are sending copies of this report to the appropriate congressional committees; the Secretaries of Defense, the Army, the Navy, and the Air Force; the Director, Office of Management and Budget; and other interested parties. Copies also will be made available to others on request.

If you have any questions, please call me on (202) 512-8412. Major contributors to this report are listed in appendix III.

Sincerely yours,

Donna M. Heivilin
Director, Defense Management
and NASA Issues

DRAFT

#### EXECUTIVE SUMMARY

#### **PURPOSE**

In early 1992, the Department of Defense (DOD) projected that major improvements from its Corporate Information Management (CIM) initiative would save \$36 billion by fiscal year 1997. About \$28 billion of these savings would come from improvements to its logistics functions. Today, however, the Department is neither projecting nor tracking overall CIM savings. DOD officials now acknowledge that the CIM initiative is much broader in scope and more difficult to implement than first thought. As a result, it may be many years before significant savings materialize.

For this reason and because of general concerns about CIM progress, the Chairman of the Senate Committee on Governmental Affairs asked GAO to review the status of the CIM initiative, focusing primarily on improvements to the DOD logistics function of materiel management. Because DOD had established one organization, the Joint Logistics Systems Center (JLSC), to oversee the improvement of its logistics functions of materiel management and depot maintenance, this report focuses on these two functions. GAO's specific objectives were to identify (1) CIM improvements made to business processes and supporting information systems and (2) impediments, if any, to achieving expected CIM results.

#### BACKGROUND

In October 1989, DOD established the CIM initiative, primarily to standardize information systems across several administrative areas. Since that time DOD's primary CIM objective has changed dramatically. Today, it encompasses all the Department's business areas, including procurement, logistics, and finance. The new CIM objective is to dramatically improve the way DOD conducts its business, primarily by replicating the best business practices used in the public and private sectors. Nevertheless, the development of standard information systems to support these improved business practices is still an important component of this new CIM objective.

To implement this approach to CIM, the Department directed senior officials within the Office of the Secretary of Defense, called Principal Staff Assistants (PSAs), to develop a "corporate" view of their assigned functional areas and identify—through a process known as business process reengineering—major improvements to current business practices. At the same time, service and agency managers were directed to take a bottoms—up look to identify and implement business process improvements that have servicewide or agencywide application.

To assist in identifying and implementing major improvements in material management and depot maintenance, DOD established JLSC.

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### DRAFT

The Center is staffed with personnel from the military services and the Defense Logistics Agency (DLA) and relies on the active participation of the services and DLA to accomplish its CIM efforts. This report deals primarily with JLSC's progress toward implementing the CIM initiative.

#### RESULTS IN BRIEF

Since it was established in November 1991, JLSC has had little impact on materiel management and depot maintenance business practices. As directed by DOD, JLSC has focused on selecting standard logistics information systems—called migration systems—that the services and DLA are to implement by mid-1997. Because of this focus on information systems, business process reengineering efforts (where most savings occur) may be delayed several years. JLSC believes, however, that selecting and implementing migration systems are necessary first steps in the reengineering process.

Although some progress has been made, several impediments have delayed JLSC in taking these first steps. Three critical impediments are (1) senior DOD officials and managers have not been receptive to CIM, (2) DOD does not have an effective management structure in place to integrate the various CIM efforts, and (3) program management authority is unclear because of conflicting DOD directives.

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### DRAFT

These impediments are the result of fundamental weaknesses in DOD's management of the overall CIM initiative. For example, DOD has not demonstrated top management support and commitment to CIM objectives; developed a strategic plan that clearly articulates DOD's vision for improving its business operations; or trained its employees to ensure they understand CIM objectives and implementation strategies. As a result, DOD has not yet made the cultural change needed to successfully implement the CIM initiative.

#### PRINCIPAL FINDINGS

# Logistics Migration Strategy Risks Delay of Major CIM Savings

Although DOD recognizes that reengineering logistics practices is the key to obtaining the vast majority of CIM savings, it has required JLSC to delay this process and focus on selecting migration systems. DOD believes that having migration systems is necessary to (1) obtain short-term cost savings to offset recent budget reductions and (2) develop a standard logistics environment across the military services and DLA. JLSC has made reasonable progress in this effort. Working with the services and DLA, it selected 27 migration systems for the material management and depot maintenance business areas and planned to implement these systems over a 7 to 8-year period. Because this deployment schedule

exceeded the 3-year milestone mandated by the Deputy Secretary of Defense, the Deputy Under Secretary of Defense (Logistics), in March 1994, proposed that JLSC be replaced by a new organization. This new organization—called the Logistics Standard Systems Joint Program Office—is to provide the intensive management for meeting the Deputy Secretary's 3-year timeframe.

At the time of the GAO review, the proposed change in management over material management and depot maintenance CIM efforts had not yet been approved. However, GAO is concerned that three years may not be enough time to ensure the migration systems meet the services' and DLA's operational requirements. In addition, this narrowing of focus on deployment of migration systems may further delay significant improvements to the logistics processes and may reduce funding for service-level improvement projects.

### Impediments to Further Progress

In trying to implement the CIM initiative, JLSC has been confronted by (1) senior DOD officials and managers who have not fully accepted the methods for achieving CIM objectives, (2) poor integration of CIM efforts across Defense business areas, and (3) unclear authority over development of information systems. These have all delayed JLSC's implementation efforts and may be systemic to the overall DOD CIM initiative.

Although JLSC has taken actions to obtain the needed support and commitment of DOD managers responsible for Defense logistics, it has encountered a strong institutional bias against the changes posed by CIM. Independent organizations that have studied the overall CIM initiative have concluded that DOD must go through a major shift in organizational culture if CIM is to succeed. As discussed in a recent report on the overall CIM initiative, GAO believes such a shift requires top management to develop and clearly articulate its vision and goals to all employees. In addition, DOD needs to develop an organizational structure that is compatible with the new culture, create a specific management style that reinforces desired vision and goals, and train the employees in the organization's new business principles and practices.

Although DOD recognizes that no Defense function can be accomplished in isolation from other functions, its efforts to reengineer these functions are to a great extent being made in isolation from one another. In implementing CIM across DOD's materiel management and depot maintenance functions, JLSC has encountered duplication and conflict with other CIM efforts. While JLSC has tried to resolve these problems through liaisons with other CIM efforts, it does not have the authority to arbitrate disputes among the CIM efforts or enforce integration decisions. To resolve cross-functional CIM issues, in March 1994 DOD proposed

Defense Management: Stronger Support Needed for Corporate
Information Management Initiative To Succeed (GAO/AIMD/NSIAD-94101, Apr. 12, 1994).

a management forum, chaired by the Deputy Secretary of Defense, with membership of senior DOD, service, and DLA officials. As envisioned, this forum will seek senior-level consensus on the implementation of cross-functional business process improvements.

Clear lines of management authority over the development of migration systems are required if CIM is to succeed. DOD Directive 5000.1, "Defense Acquisition," grants service program managers the sole authority for managing their information system development projects. However, as established under DOD Directive 8000.1 "Defense Information Management Program," JLSC is to manage the design and development of materiel management and depot maintenance systems. According to JLSC officials, this dual authority over system development projects has resulted in dissention between JLSC and program managers. While JLSC has sought compromise with and assistance from these managers, conflicting lines of authority remain. Independent studies of organizational change have stated that a strategic plan that clearly articulates responsibility and authority is critical to the success of initiatives like CIM.

DOD officials have acknowledged that less than full acceptance of CIM by senior managers, the lack of integration of various CIM efforts across DOD, and conflicts between Defense managers have impeded the success of the CIM initiative. Although DOD has taken some actions to address these impediments, these actions have not been successful. GAO believes these impediments will continue to

jeopardize the CIM initiative until DOD makes fundamental changes to its organizational culture.

#### RECOMMENDATIONS

GAO is making recommendations (see ch.4) designed to foster changes in DOD's organizational culture with respect to the CIM initiative.

#### AGENCY COMMENTS

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**DRAFT** 

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#### **Abbreviations**

ASD(C3I)	Assistant Secretary of Defense for Command, Control,					
	Communications, and Intelligence					
CIM	Corporate Information Management					
DLA	Defense Logistics Agency					
DMR	Defense Management Report					
DOD	Department of Defense					
GAO	General Accounting Office					
JLSC	Joint Logistics Systems Center					
PSA	Principal Staff Assistant					

#### CHAPTER 1

#### INTRODUCTION

The Department of Defense (DOD), faced with constraints on its budget, is seeking ways to improve operations and manage resources more efficiently. The Corporate Information Management (CIM) initiative is a major part of that effort. DOD launched the initiative in 1989 as a way to improve such business operations as procurement, finance, and logistics. Initially, CIM was an effort to standardize automated information systems across the Department. Since that time, CIM has changed dramatically. Today, its primary objective is to significantly improve DOD's business processes through such techniques as business process reengineering and continuous process improvements. Nevertheless, standardization and improvement of DOD's supporting information systems are still a major CIM objective.

#### BACKGROUND

CIM has its origins in the recommendations of the President's Blue Ribbon Commission on Defense Management (the Packard Commission). The overall objectives of the Packard Commission were to identify ways to streamline and restructure Defense business operations. In July 1989, the Secretary of Defense issued the Defense Management Report (DMR) to implement the Packard Commission's recommendations.

The DMR estimated that DOD could save about \$71.1 billion by improving its management and organization.

In October 1989, DOD initiated CIM as a management method for achieving DMR objectives. Initially, CIM was an attempt to improve and standardize automated information systems across the Department. DOD thought this approach would avoid the cost of developing and supporting redundant systems designed to perform the same basic functions. For example, each service had developed its own process and system for paying active military personnel. While there are some unique differences among the services, there was no justification for the multiple systems that perform the same function.

As independent groups, such as the Executive Level Group (ELG), 1 questioned this emphasis on standardizing information systems, DOD's concept of CIM began to evolve. In January 1991, the Deputy Secretary of Defense endorsed the group's Plan for Corporate Information Management. Under this plan, DOD would "reengineer," or thoroughly study and redesign, its business processes before it standardized its information systems. DOD thought this new CIM concept would emphasize the importance of improving the way it does

<sup>&</sup>lt;sup>1</sup>In late 1989, the Deputy Secretary of Defense convened the Executive Level Group of high-level industry and Defense officials to evaluate Defense business practices and suggest an overall direction for the Department.

business rather than merely standardizing old, inefficient business processes.

DOD also expected this new concept to offer opportunities for substantial savings. In April 1992, DOD projected that improvements made under CIM would account for \$36 billion of the \$71.1 billion in DMR savings. Although a number of studies have since found these DMR and CIM targets to be overly optimistic, there is agreement that CIM improvements can save DOD tens of billions of dollars over the next 10 years.

In November 1992, DOD once again changed CIM's emphasis. Looking for ways to offset significant defense budget reductions, the DOD Comptroller recommended that CIM efforts focus on selecting standard, or "migrating," information systems which could be implemented departmentwide. Business process improvements, under this new emphasis, would still occur but would be done concurrently with the selection and implementation of the migration systems.

<sup>&</sup>lt;sup>2</sup>See <u>FY 1994-99 Future Years Defense Plan</u>, Defense Science Board Task Force (May 1993); <u>Acquisition Reform: Defense Management Report Savings Initiatives (GAO/NSIAD-91-11, Dec. 4, 1990.)</u>; and <u>Defense ADP: Corporate Information Management Savings Estimates Are Not Supported (GAO/IMTEC-91-18, Feb. 22, 1991)</u>.

# AND BOTTOMS-UP LOOK AT DOD

The Assistant Secretary of Defense for Command, Control,

Communication, and Intelligence (C3I) is responsible for providing overall technical direction for the CIM effort. Principal Staff Assistants (PSA) are responsible for providing guidance and oversight for implementing the initiative within their assigned functional areas. The PSAs are to develop a "corporate" view of their areas and identify major changes to improve business processes. DOD believes that this top-down review offers the best opportunity for innovative improvements that have the greatest potential for significant cost savings.

Meanwhile, service and Defense Logistics Agency (DLA) managers are to take a bottoms-up look at the organization to identify and implement business process improvements that have service or agency wide application. While such improvements have smaller cost savings potential, according to DOD, they usually can be achieved sooner and involve more managers and staff in the change process.

<sup>&</sup>lt;sup>3</sup>PSAs include the Under Secretaries, Assistant Secretaries, General Counsel, Inspector General, Comptroller, Assistants to the Secretary of Defense, and the Office of the Secretary of Defense Directors or equivalents, including the Chairman of the Joint Chiefs of Staff, who report directly to the Secretary or Deputy Secretary of Defense.

# LOGISTICS IMPROVEMENTS EXPECTED TO PROVIDE MOST CIM SAVINGS

DOD expects that CIM-related improvements to its logistics functions will provide three-fourths of projected CIM cost savings. Logistics is the acquisition, management, movement, and maintenance of the material in the DOD inventory. This report focuses specifically on two logistics functions: material management and depot maintenance.<sup>4</sup>

Material management includes deciding what supply items to stock, determining how many of each are needed, purchasing needed items from private vendors or manufacturing agencies within DOD, storing the items, and tracking them from the time they are ordered until they are used. Depot maintenance includes manufacturing, overhauling, and repairing parts, assemblies, sub-assemblies, and end items such as aircraft, ships, and tanks.

<sup>\*</sup>DOD logistics also includes the areas of distribution and transportation. DOD has CIM efforts ongoing in each of these areas.

# JOINT OFFICE CREATED TO IMPROVE DOD'S MATERIAL MANAGEMENT AND DEPOT MAINTENANCE

In November 1991, the PSA for logistics<sup>5</sup> established the Joint Logistics System Center (JLSC) to achieve CIM goals for the materiel management and depot maintenance business areas. Simply stated, JLSC's charter is to work with the services and DLA to identify business process improvements and the appropriate application of information systems. Under this concept, JLSC serves primarily as a facilitator; the services and DLA design, develop, integrate, and implement the new corporate logistics systems.

Recognizing the importance of active participation by the services and DLA in the CIM process, the PSA staffed JLSC with about 250 personnel from all four military services and DLA. In addition, the services and DLA provide experts to ensure JLSC fully addresses mission requirements.

### OBJECTIVES, SCOPE, AND METHODOLOGY

The Chairman of the Senate Committee on Governmental Affairs asked us to review DOD's implementation of the CIM program. In response

<sup>&</sup>lt;sup>5</sup>When JLSC was created, the PSA for logistics was the Assistant Secretary of Defense for Production and Logistics. Following a reorganization in the Office of the Secretary of Defense, the PSA for logistics is now the Deputy Under Secretary of Defense for Logistics.

to his request, we focused our review on the logistics functions of material management and depot maintenance because the Committee had expressed particular interest in material management and because one organization, JLSC, had been established to oversee the implementation of CIM in these two areas. Our specific objectives were to identify (1) CIM improvements made to business processes and supporting information systems and (2) impediments, if any, to achieving expected CIM results.

To identify CIM improvements in the areas of material management and depot maintenance, we analyzed implementation plans, project information maintained by JLSC managers, and progress briefings given to senior DOD officials. Further, we interviewed senior DOD officials responsible for managing CIM efforts in the logistics areas and project managers responsible for specific efforts under the initiative. We also examined analyses that JLSC used to establish cost and benefit projections, budget documents, and updates of cost and benefit estimates. We did not independently validate JLSC's savings estimates for its initiatives.

To identify major impediments to achieving expected CIM results, we reviewed guidance provided by the Deputy Under Secretary of Defense (Logistics), including DOD's logistics objectives, strategic business plans, the Logistics CIM Migration Master Plan, and Defense memoranda establishing and promoting the CIM initiative. Also, we interviewed JLSC officials responsible for the overall

progress of the implementation and reviewed correspondence and briefings concerning delays encountered. We also reviewed independent studies and prior audits, and held discussions with DOD officials responsible for logistics processes.

We performed our work at the Office of the Assistant Secretary of Defense (C3I), Washington, D.C.; the Office of the Assistant Secretary of Defense for Production and Logistics, Alexandria, Virginia; and the Joint Logistics Systems Center, Wright-Patterson Air Force Base, Ohio. We conducted our work between October 1992 and March 1994 in accordance with generally accepted government auditing standards.

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#### CHAPTER 2

# DOD DIRECTED JLSC TO DEVELOP MIGRATION SYSTEMS

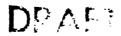
When activated, JLSC took actions to achieve quick, identifiable cost savings through CIM, primarily by facilitating the deployment of business processes and supporting information systems from one of the services or DLA--where they had been successfully implemented--to the others. JLSC identified 20 of these near-term projects during late 1992 and early 1993 and had begun implementing 7 of them before it was directed by DOD to refocus its efforts.

As directed by DOD, JLSC is now focusing most of its efforts on selecting and testing migration information systems for material management and depot maintenance. This strategy runs counter to most of the expert advice received by DOD concerning how to best improve its business practices. Nevertheless, DOD believes this approach is necessary to achieve quick cost savings and to form a foundation upon which major business process improvements can be made. While we have no basis to question the need for migration systems, we are concerned that the implementation strategy may delay significant improvement of the logistics processes, deploy information systems which do not meet services' and DLA's operational requirements, and divert funds from ongoing improvement projects.

# JLSC SELECTED AND DEPLOYED NEAR-TERM INITIATIVES

In March 1992, JLSC identified 20 improvement projects—15 in materiel management and 5 in depot maintenance—that it termed near—term initiatives. JLSC selected these projects because they could make current business processes more efficient and effective and because they were doable. That is, they could be quickly implemented at a few service and DLA sites to achieve quick cost savings. According to JLSC, it was also important to have some early successes in order to get the services and DLA to accept the CIM concept. These projects primarily involve the expanded deployment of business processes and supporting information systems that have been used successfully by one service or DLA. Overall, JLSC projected that implementation of the 20 projects would save the services more than \$2 billion over time periods ranging from 5 to 20 years.

As of October 1993, JLSC had begun implementing seven of the near-term initiatives (five materiel management and two depot maintenance). According to JLSC, the projects had saved at least \$7.7 million and located previously lost or unaccounted government assets worth about \$12.7 million. Although additional savings may have accrued, JLSC had not yet validated all cost and benefit projections. Before JLSC could implement the remaining 13 near-term initiatives, DOD officials questioned the viability of the



near-term strategy and redirected JLSC's implementation approach to CIM. Following are two examples of the seven near-term initiatives that have been implemented. (App. I describes all seven initiatives.)

#### Cataloging Tools On-Line

This initiative is a materiel management productivity aid for DOD catalogers. When DOD introduces a new supply item into its inventory, the item is listed in a catalog provided to the services and DLA. Currently, catalogers use paper technical drawings, specifications, vendor catalogs, guidebooks, procedural manuals, and regulations to complete cataloging steps such as writing a brief description of the supply item, making drawings, and assigning it a stock number.

Cataloging Tools On-Line, a DLA system, enables the cataloger to electronically access reference documents, simultaneously compare technical data with drafted descriptions, and automatically check for errors. Catalogers using this automated aid are expected to create catalog entries much faster and more accurately than is currently done.

JLSC projects that the 10 new sites receiving the Cataloging Tools On-Line system will save about \$74.5 million over the next 8 years through the elimination of manual processes, reduced rejection

rates of ordered items, and better availability of and access to maintenance information.

#### Hazardous Material Management System

This depot maintenance initiative is intended to reduce the amount of money maintenance depots spend for hazardous materials such as paint thinner, oils, and chlorine. Currently, the depots spend more than \$300 million each year to buy hazardous materials used in the repair and maintenance of end items. Officials acknowledge that a significant portion of these materials is wasted.

In 1992, the Air Force implemented the Hazardous Material
Management System at its Ogden Air Logistics Center to provide
information about who received hazardous materials; which and how
much they received; and when, where, and how the materials were
used. With this information, Ogden managers identified wasteful
practices, such as workers receiving more material than needed for
the job. In addition, they found that workers were storing excess
material in their lockers and that stored materials were being
improperly sealed. Depot management subsequently changed the
methods for handling hazardous materials. For example, materials
are now issued only in the amount needed. As a result, Ogden
reduced the amount of hazardous materials purchased in 1992 by
nearly 39 percent, or a \$7.7 million net cost savings.

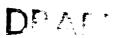
JLSC plans to install the Hazardous Material Management System at 27 maintenance depots and projects that they will save between \$83.3 million and \$202.3 million over a 6-year period. As of September 1993, the system had been installed at seven sites.

### JLSC DIRECTED TO REFOCUS

#### ON A MIGRATION STRATEGY

In October 1992, the Acting DOD Comptroller (responsible for reviewing the justification for any requests for capital budget funding) expressed concern that JLSC's CIM approach would not produce the cost savings needed to help offset significant defense budget reductions. He favored an approach where JLSC would quickly select and implement standard information systems. By doing this, the Comptroller hoped that DOD could transition to a standard logistics system within a reasonable period of time at an affordable cost. The Comptroller recommended that JLSC immediately select a functionally and technically integrated information system (from those being operated by one of the services and DLA) for each of the materiel management and depot maintenance business areas.

In November 1992, the PSA for logistics (at that time the Assistant Secretary of Defense for Production and Logistics) issued the Logistics CIM Migration Master Plan. This plan established the selection of migration systems as the CIM implementation strategy within the logistics area. As a result, JLSC shifted its focus



from implementing the near-term initiatives to selecting migration systems for material management and depot maintenance. JLSC continued to implement the 7 started projects and incorporated the remaining 13 projects into the analysis it used to select migration systems.

JLSC also developed a three-step strategy designed to gradually evolve the services and DLA from their multiple and often redundant material management and depot maintenance business practices to a single, or corporate, DOD logistics process. These three steps are as follows:

- (1) Select and deploy migration systems—either single information systems or groups of information systems—in each functional area. The systems are to be linked together to satisfy users' total requirements.
- (2) Improve current business processes and add new functions to fill voids.
- (3) Combine the improved and new business processes with the new information systems to form a corporate logistics process.

Once the selected migration systems are deployed (step one of the strategy) JLSC plans to work with the services and DLA to add needed functions and make incremental improvements to logistics

business processes (step two). Developing a corporate logistics process (step three) is where JLSC expects to use such tools as reengineering to identify and implement major and innovative changes to in the logistics area. According to DOD, step three is where the vast majority of cost savings is likely to occur.

In October 1993, the Deputy Secretary of Defense, noting the necessity to offset declining resources, directed that senior Defense managers accelerate the selection and deployment of migration systems. The Deputy Secretary stated, "The acceleration of these actions is key to containing the functional costs of performing the DOD mission within our constrained budget." The Secretary established a 6-month deadline for selection of migration systems and a maximum of 3 years for DOD-wide transition to these systems.

Because JLSC's migration strategy would take 7 to 8 years to complete—longer than the 3-year maximum set by the Deputy Secretary—the Deputy Under Secretary of Defense (Logistics) in March 1994 proposed changing JLSC's management structure and mission. Specifically, he recommended the replacement of JLSC with a Logistics Standard Systems Joint Program Office. This new office would to be staffed with personnel specializing in automated information systems to provide intensive focus on information systems improvement and deployment. At the time of our review the services and DLA were commenting on this proposal.

# LOGISTICS CIM MIGRATION STRATEGY RUNS COUNTER TO MOST EXPERT ADVICE

Most industry experts who have studied the CIM initiative have found that DOD's migration system strategy focuses too much on improving automated information systems rather than reengineering its business practices. Reengineering, these experts believe, offers DOD the best opportunity to move to a new plateau of performance, while improving information systems usually results in the automation of old, inefficient ways of doing business.

This view was first articulated by the Executive Level Group back in October 1989, when CIM was initiated. The group noted that DOD viewed information management as merely automating existing business methods in order to cut costs. The group recommended that DOD adopt a new management philosophy that emphasizes continuous improvement of business methods before identifying specific computing and communications technologies.

The Information Technology Association of America, in its July 1993 study on "enterprise integration" within DOD, provided private industry examples that could serve as strong endorsements for the

Enterprise Integration in the Department of Defense (July 1993). Enterprise integration embraces CIM principles and calls for redesigning the existing DOD (the enterprise) mission activities to eliminate redundant or low-value functions and processes, enhance war-fighting capabilities, and achieve significant cost savings.

ELG's recommendations. According to the study, companies that had experience in enterprise integration took steps to ensure that their corporatewide focus was on process improvement first and on technology improvements last. For example, it reported that "the major benefits garnered by Hallmark, Boeing, and other corporations implementing [enterprise integration] primarily resulted from business process reengineering (BPR), rather than from just adding the latest information technology."

In our report, <u>Defense ADP: Corporate Information Management Must Overcome Major Problems</u> (GAO/IMTEC-92-77, Sept. 14, 1992), we concluded that incremental business decisions needed to be made before technology was selected. To do otherwise invited risk and created only an illusion of progress. We also said that selecting information systems before improving business processes may preclude the bulk of CIM's potential cost savings by locking DOD into existing inefficient ways of doing business.

DOD itself has acknowledged that business process improvements hold the greatest potential for significant cost savings. In early estimates, DOD officials projected that business process improvements would account for 83 percent of cost savings under CIM, whereas better use of information technology would account for just 17 percent of savings.

# DOD BELIEVES MIGRATION SYSTEMS ARE CRITICAL TO BUSINESS PROCESS IMPROVEMENT

DOD officials recognize that reengineering logistics practices is the key to obtaining the vast majority of CIM benefits. In its Logistics CIM Migration Master Plan, however, DOD gives two reasons why the selection and implementation of migration systems is a critical first step toward business process improvement. First, they provide needed quick cost recoveries. Second, they establish a common business environment needed to reengineer business processes.

According to JLSC, the service secretaries and other DOD managers were concerned about projections that the reengineering of logistics business processes would take 10 years or more to complete. Given the amount of funding stripped from their fiscal year 1993 through fiscal year 1997 Defense budgets as a result of multiple DMR savings targets, the service secretaries asked the DOD Comptroller to come up with another technique for getting more immediate cost savings. This request was the genesis for the concept of standardizing information systems for use across DOD.

DOD officials have also stated that the vast number of different logistics processes and supporting information systems in the Department must be reduced before it can make significant improvements. For example, the Deputy Director for Materiel and

Logistics Functional Information Management stated, "While it is the intent of the Corporate Information Management (CIM) program to determine the Business Process Improvements (BPI) prior to automation efforts, in the case of the Logistic systems, we must first 'standardize' the existing process to be improved." The Deputy Director cited the experience of General Telephone Electronics (GTE) as support for this position. He said that in moving toward an integrated system within the company, GTE first selected a single migration system.

JLSC supports the migration system concept as a necessary tool to eliminate multiple information systems supporting the same business functions. According to JLSC's migration plan, migration systems will form the foundation upon which significant improvements to current logistics practices can be made. This foundation of migratory systems will eliminate the need to implement significant changes across the multitude of systems and processes that currently exist throughout the services and DLA. More importantly, the resulting standardization of the best of the existing logistics processes across the Department will, in itself, result in significant business process improvements. Also, in preliminary projections, JLSC estimated that such improvements will result in a total of \$16 billion in savings by 2005.

### CONCERNS ABOUT THE

### MIGRATION SYSTEM STRATEGY

Although DOD and JLSC believe that selecting migration systems is a necessary first step in the reengineering process, we have several concerns about this strategy. First, those people familiar with reengineering techniques that have studied the CIM initiative believe that DOD's focus on standardizing information systems first will delay significant process improvements. As a result, changes will be marginal and cost savings will not approach what DOD needs in its current environment of shrinking budgets.

Second, DOD's effort to select and implement migrating systems in 3 years raises a new dimension of risk to the CIM process. Without some flexibility in this schedule, the services and DLA may have to implement migration systems even if these systems are not yet capable of meeting their needs. Officials from DLA told us, for example, that the migration system for material management—as currently configured—falls far short of meeting its operational requirements. Unless additional capabilities are added to this system to handle DLA's requirements, these officials predicted that it would be a major failure.

Nevertheless, JLSC believes that the accelerated migration system schedule is just what the CIM initiative needed. The JLSC Commander stated that the accelerated schedule forced JLSC and

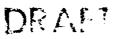
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others to stop their analysis and actually begin to implement change. He conceded that the first versions of the migration systems will not likely include all the capabilities the services and DLA need or desire. His goal, however, is to make the systems functional for all users before they are deployed in 3 years. Under CIM's "continuous improvement" concept, additional capabilities can be incorporated in later versions of the systems.

Further, to meet its accelerated CIM schedule, DOD is currently considering a major reorganization of the management of the CIM efforts in logistics business areas. In a March 1994 memorandum circulated to the services and DLA, the Deputy Under Secretary of Defense (Logistics) proposed that JLSC be replaced by a new organization—the Logistics Standard Systems Joint Program Office. Under this proposal the number of personnel assigned to materiel management and depot maintenance CIM efforts would be reduced from about 250 (JLSC staffing) to 120 for the joint program office. It is yet unclear how this new smaller office will be able to deploy material management and depot maintenance migration systems in half the time planned by JLSC. However, at the time of our review, JLSC had not been replaced. The Deputy Under Secretary was seeking comments on his proposal.

Third, some DLA managers also believe that CIM in general, and JLSC's focus on migration systems in particular, is affecting their ability to implement business process improvements. DLA, for



example, is attempting some innovative pilot projects—outside the CIM umbrella—to find better, more efficient ways of doing business. Encouraged by a series of reports we issued over the past 3 years which compared DLA practices to the best in the private sector, DLA is looking at concepts such as direct vendor delivery and supplier parks. If these concepts prove successful, DLA will significantly reduce its inventories and may eventually eliminate supply depots altogether—at least as DOD knows them today.

To effectively carry out the pilot projects, however, DLA officials said they will need funds to develop supporting information systems or help from JLSC to ensure the selected migration systems satisfy their new process requirements. At the time we met with DLA officials, however, they said that JLSC's help had not been forthcoming. They were concerned that the pilot projects might have to be stopped or significantly curtailed. JLSC officials recently told us they had met with DLA officials and were taking steps to arrive at a mutual solution to the problem.

#### CHAPTER 3

#### JLSC HAS MADE PROGRESS

#### IMPLEMENTING THE MIGRATION SYSTEMS

As directed by DOD, JLSC selected migration systems for materiel management and depot maintenance functions. JLSC also began documenting current logistics processes to identify opportunities for improvements, although it has not yet made major changes to current processes. Finally, in accordance with its mandate, JLSC eliminated service and DLA funding requests (\$22.7 million in 1992 and \$320.6 million in 1993) for information system projects that it deemed redundant.

### JLSC HAS SELECTED

#### MIGRATION SYSTEMS

During 1993, JLSC--in cooperation with teams of service and DLA experts--selected 27 migration systems from among the more than 200 information systems currently being used to support major material management and depot maintenance business processes.

Prior to the selection of these systems, each service and DLA was given the opportunity to identify the system (or combination of systems) that it used to support its logistics business area.

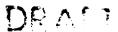
Service and DLA experts for material management and depot

maintenance presented their candidate systems in an open forum for consideration. These presentations included detailed information on their systems' capabilities, interfaces with other logistics systems, and other information, such as cost, benefit, and technical data.

On the basis of this information, the service, DLA, and JLSC representatives came to consensus on the selection of 27 candidate systems--24 for material management and 3 for depot maintenance. These selections were later approved by Deputy Under Secretary of Defense for Logistics. (App. II describes each of the 27 migration systems selected at the time of our review.)

### Materiel Management Migration Systems

The 24 migration systems selected for materiel management support the four major materiel management business processes: asset management, item introduction, pre-procurement, and requirements determination. Together, they form what JLSC calls the Materiel Management Standard System. JLSC planned to test this combined system at one site--the Marine Corps Logistics Base, Albany, Georgia--beginning in January 1995. Upon successful completion of the test, JLSC was to assist the services and DLA in implementing the new DOD standard system at additional sites.



As of September 1993, on the basis of a preliminary functional economic analysis, JLSC projected that improved business processes and reductions in the number of systems would help the services and DLA recover as much as \$12 billion over the 10-year period ending in fiscal year 2005. While we did not review the support behind this estimate, JLSC cautioned that it is their "first look" at potential savings.

JLSC must do much additional data collection and analysis before cost recoveries can be predicted with any certainty. However, they believe that the Materiel Management Standard System will eventually result in numerous improvements to material management business processes, primarily because it incorporates general business improvements from Defense initiatives such as the DMR, prior CIM efforts, and a compilation of "best practices" identified in numerous DOD, service, and DLA initiatives.

### Depot Maintenance Migration Systems

The three migration systems selected for depot maintenance support the two major depot maintenance business processes of maintenance management (planning and allocating labor, material, and capital resources for repairing equipment) and shop floor industrial processes (activities for making labor and equipment more productive on the shop floor). These three migration systems, along with a system not yet selected, together form the Depot

Maintenance Resource Planning System. JLSC planned to test this combined system at the Warner-Robbins Air Logistics Center beginning in January 1995. Upon successful completion of the test, JLSC was to assist the services' and DLA's implementation of the new system at additional sites.

On the basis of a preliminary functional economic analysis completed in January 1994, JLSC expected that improvements to depot maintenance processes and reductions in the number of systems would help the services and DLA recover as much as \$4 billion over the 10-year period ending in fiscal year 2003. This estimate, however, assumed a 7-year implementation period, not the 3-year period mandated by DOD.

# JLSC HAS BEGUN PRELIMINARY WORK FOR IMPROVING BUSINESS PROCESSES

While it facilitated the selection of migration systems under the first step of its CIM implementation strategy, JLSC also took preliminary steps to identify how it could improve current material management and depot maintenance business processes—the second step of JLSC's CIM implementation strategy. As of September 1993, it had developed models documenting 484 logistics practices used by the services and DLA to accomplish material management and depot maintenance activities. Service and DLA officials are now analyzing these JLSC models to further define their current



business environment, establish business requirements and identify the best business practices.

When complete, these models are to serve two purposes. In the near term, they form a basis for understanding and discussing logistics processes, evaluating their effectiveness, and identifying opportunities for improvement. In the longer term, JLSC plans to use the models to help reengineer business processes, control this evolution, integrate new technologies, and communicate new functions of reengineered business processes.

#### JLSC REDUCED BUDGET REQUESTS

### FOR INFORMATION SYSTEMS

As part of the CIM strategy, the Assistant Secretary of Defense for Production and Logistics gave JLSC review authority over the services' and DLA's budget requests for development of new material management and depot maintenance information systems. Under this authority, JLSC is to identify funding that could be eliminated from a funding request for any information system development project that duplicates a project or operational system of another service.

JLSC reviewed the services' and DLA's requests and justifications for fiscal year 1993 project funds and compared the proposed new information systems to those (1) already existing or being

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developed by other services and (2) selected by JLSC as near-term initiatives. As shown in table 3.1, JLSC reduced the requests for fiscal year 1993 funding by \$22.7 million, or about 36 percent.

Table 3.1: JLSC Reductions of Fiscal Year 1993 Budget Requests
Dollars in millions

Component	Amount requested	Amount approved	Difference
Air Force	\$16.9	\$8.1	\$8.8
Army	12.5	5.2	7.3
DLA	20.2	14.1	6.1
Navy	13.7	13.2	0.5
Marine Corps	0	0	0
Total	\$63.3	\$40.6	\$22.7

In 1993, JLSC performed the same type of analysis on fiscal year 1994 budget requests from the services and DLA. The only difference was that JLSC analyzed these requests to determine if any overlapped with the systems selected as the migration systems for material management and depot maintenance. As shown in table 2.2, JLSC reduced fiscal year 1994 funding requests by \$320.6 million, or about 96 percent.

<sup>&</sup>lt;sup>7</sup>Fiscal year 1992 funds were used to fund near-term initiatives in early fiscal year 1993. Additionally, services and DLA made their fiscal year 1993 budget request before JLSC was established.

Table 3.2: JLSC Reductions of Fiscal Year 1994 Budget Requests
Dollars in millions

Component	Amount requested	Amount approved	Difference
Air Force	\$70.6	\$3.4	\$67.2
Army	203.7	4.4	199.3
DLA	22.4	1.8	20.6
Navy	34.6	3.1	31.5
Marine Corps	2.3	0.3	2.0
Total	\$333.6	\$13.0	\$320.6

According to JLSC officials, the reduction of these requests may not directly equate to cost savings of the same amount because (1) the requests could have been overstated (which sometimes happens early in the budget request cycle), (2) the requested funds may not have been approved by DOD under the traditional budget process, and (3) the services or DLA may have received funding for their projects through other budget submissions.

It is important to note that JLSC believes this type of drastic reduction in budget authority can be sustained only for a short period of time--2 or 3 years. According to the JLSC Commander, the downsizing of DOD has resulted in the services and DLA having fewer people to run their current business processes. Over the short term, this situation can be managed. It cannot, however, be sustained over the longer term. Either more people will have to be used or the processes will have to be made more efficient. Thus,

after 2 or 3 years, JLSC must either provide standard materiel management and depot maintenance information systems to the services and DLA or, once again, allow them funding to improve or replace existing systems.

#### CHAPTER 4

### IMPEDIMENTS TO FURTHER PROGRESS

Three critical impediments are jeopardizing JLSC's ability to successfully implement its strategy for improving business practices. First, some senior officials and managers have not been receptive to CIM. Second, DOD does not have an effective management structure in place to integrate the various CIM efforts, including those of JLSC. Third, program management authority is unclear because of conflicting DOD directives.

These impediments are not confined to materiel management and depot maintenance, but indicate a fundamental weakness in DOD's approach to managing the overall CIM initiative. DOD has not made the changes to its organizational culture needed to successfully implement major changes to its current business processes. Private companies that have successfully changed their business operations generally agree that changing the organization's culture to support a new way of doing business was one of the most critical factors to their success.

### DOD OFFICIALS HAVE

#### NOT FULLY ACCEPTED CIM

Independent studies have shown that for major improvement initiatives such as CIM to succeed all employees must understand and accept the changes being made. For example, the Information Technology Association of America, in its July 1993 report, found that the full commitment of all organization members to the improvement effort was of greatest importance to its successful implementation. Similarly, the Policy Analysis Center of the Institute of Public Policy, in its November 1993 report, Functional Process Improvement Implementation: Public Sector Reengineering, found that even the best constructed improvement plans are likely to fail unless employees are involved at all stages of the reengineering effort.

Recognizing that "buy in" was a critical success factor, JLSC took actions to involve the services and DLA in implementing CIM. For instance, more than 250 logistics personnel from the services and DLA were brought together to work at JLSC. Also, JLSC has tried to maintain a continual dialogue with DOD, service, and DLA managers responsible for Defense logistics. Nevertheless, JLSC officials said they have still encountered a strong institutional bias against the changes posed by CIM, primarily because managers view these changes as a threat to their authority over logistics business decisions.

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This lack of acceptance, according to JLSC officials, has slowed their implementation of CIM. For example, before the selection of the Air Force's Combat Ammunition System as a migration system, JLSC representatives visited the Air Force program office developing the system to obtain needed cost and requirements data. However, program management officials were unwilling to provide JLSC any of this data. According to the JLSC Deputy Commander, Air Force officials felt threatened by CIM because they would have to relinquish some of their authority and control over the system's development. Air Force officials eventually provided the needed data but only after the JLSC Commander notified them that due to the lack of cooperation it intended to select a competing Army system. JLSC officials did not estimate the length of delay caused by this lack of cooperation.

Resistance to the CIM initiative is not limited to JLSC's efforts. The DOD Inspector General, in its report, <u>Defense Corporate</u>

<u>Information Management Initiative, Program Evaluation</u> (Jan. 1993), concluded that the lack of consensus and support for the overall CIM initiative by DOD managers was severely hampering its implementation. The Inspector General attributed this lack of support to the absence of an overall CIM plan that was clearly presented to and understood by the managers. It stated:

"Based on our interviews with both functional and technical areas managers, we found there is no clear and consistent

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definition or understanding of the CIM initiative and its respective elements . . . While they accept the broad precepts of the CIM Initiative, they are reluctant to give full support until they see and fully understand the complete CIM plan. That reluctance manifested itself in two broad areas—support for organizational realignments and for selection of technical solutions."

Because this impediment appeared to affect more than JLSC's efforts within material management and depot maintenance, we discussed it with DOD officials responsible for implementing CIM across all logistics business areas. These officials confirmed that service and DLA managers had yet to fully accept the overall CIM initiative. On October 13, 1993, the Deputy Secretary of Defense issued a memorandum that re-emphasized top-level support for CIM and required senior managers to take specific actions within established milestones to help implement the initiative.

While this memorandum may have provided a first step toward gaining acceptance of CIM, it alone may not overcome managers' resistance. In February 1992, we reported that private companies use a combination of techniques to successfully change their cultures. Two techniques most important to success were (1) top management support and commitment to the effort and (2) training of employees

Organization Culture: Techniques Companies Use to Perpetuate or Change Beliefs and Values (GAO/NSIAD-92-105, Feb. 27, 1992).

to instill in them the organization's new mission, values, and guiding principles. Other key techniques included communicating the organization's vision and goals to its employees, creating a specific management style that reinforces this desired vision and these goals, and developing an organizational structure that is compatible with the new culture.

Obtaining support and commitment from Defense managers may also require a name change. Contrary to what its name implies, CIM is much more than an information technology initiative. As designed, CIM is a major effort to reengineer business processes, with information technology being a necessary support function.

Nevertheless, many service and DLA managers perceive CIM as either a budget-cutting initiative or an effort to standardize information systems. Consequently, they do not see it as an initiative that deserves their support--most managers do not want their budget cut and are more comfortable with their existing systems than a comparable system from another service.

While this may sound trivial, according to DOD officials, senior managers have some very negative views about CIM--primarily because they misunderstand CIM's purpose. While the training we mentioned above would help solve this problem, we believe DOD should also give its improvement effort a fresh start. Changing its name (to better reflect what CIM has become) is one way to do that.

#### CIM EFFORTS REMAIN ISOLATED

#### FROM ONE ANOTHER

In draft CIM guidance dated January 1993, DOD recognizes that no Defense function can be accomplished in isolation from other functions. For example, improvements to weapon systems management could cut across several business areas, including logistics, finance, and procurement. Consequently, when trying to improve Defense functions, it is important to address all related business areas. Improvements or changes made to one business area will likely have an impact on the others.

We found that the CIM improvements are to a great extent being made in isolation from one another. According to JLSC officials, there is continual overlap of CIM issues across the different DOD business areas. However, the integration requirements of the related business areas have not been identified and established. Nor is any one office responsible for overseeing the integration of CIM business process improvements across these areas. While JLSC is unofficially recognized within DOD as a CIM integrator and maintains liaisons with offices responsible for CIM efforts in finance and procurement, it does not have the authority to arbitrate disputes between CIM efforts or enforce integration decisions.

Because of this isolation, or "stovepiping," CIM improvements made in one business area, can duplicate or conflict with those made in another business area even though the function being improved is common to both. According to JLSC officials, this stovepiping impeded its progress in selecting migration systems for the materiel management and depot maintenance business areas. For example, JLSC reviewed the practices involved in buying supply items. Functions involved in preparing procurement requests, such as determining the type and amount of supplies needed, fall under the logistics CIM effort. Functions performed after the supply contract is awarded are the responsibility of the procurement CIM effort.

In consultation with service and DLA representatives, JLSC chose the Integrated Technical Item Management and Procurement information system as the migration system for supply contract preaward practices. However, the Procurement CIM Council reviewed the practices performed after the supply contract is awarded and chose the Defense Procurement and Contracting System. Although the precontracting and post-contracting activities are part of the larger procurement process, the logistics and procurement CIM efforts were not integrated.

While they did not estimate the resources involved, JLSC officials stated that much time has been spent working on such integration issues with various service and DLA representatives. We believe

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that DOD will likely develop, deploy, operate, and maintain two automated systems to provide information on different parts of the procurement process. Such a result would be inconsistent with the stated CIM purpose of streamlining business processes and standardizing their supporting information systems.

Recognizing the need to integrate CIM efforts, DOD established a number of boards and councils to facilitate their integration, but these efforts have not succeeded. For example, DOD established the Information Policy Council to facilitate the integration of information management functions, activities, and systems.

According to DOD officials, this Council has not been successful because it does not meet frequently enough and does not include as part of its membership the officials needed to decide integration issues. Also, in January 1992, the Assistant Secretary of Defense (C3I) established the Corporate Functional Integration Board to build more active CIM participation. This Board failed for the same reasons.

In March 1994, DOD proposed a management forum called the Enterprise Integration Executive Board, chaired by the Deputy Secretary of Defense, to resolve cross-functional integration issues. As proposed, this forum would exchange information and views about cross-functional management concepts, policies, and plans to achieve CIM goals. With membership of DOD senior-level managers, service Secretaries, and the Chairman of the Joint Chiefs

of Staff; this Board has the membership needed to achieve seniorlevel consensus on cross-functional and integration issues. Its success, however, depends on the level of interest and commitment from the Board members.

#### PROGRAM AUTHORITY

#### IS UNCLEAR

With the establishment of JLSC, DOD created two separate lines of authority for managing the development of logistics information systems. DOD Directive 5000.1, "Defense Acquisition," and DOD Directive 5000.2, "Defense Acquisition Management Policies and Procedures," grant service program managers sole authority for managing their assigned programs. However, under authority granted by the Assistant Secretary of Defense for Production and Logistics JLSC is to manage the design, development, implementation, and maintenance of logistics information systems and to exercise funding control over these acquisitions.

This dual authority has resulted in dissension between JLSC and program offices about which office has overall authority over the development and implementation of information systems. For example, under JLSC the Air Force's Depot Maintenance Management Information System was selected as a migration system to be installed at its test site by January 1995. The Air Force project manager, however, took the position that the development project is



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under the Air Force acquisition program and, as such, must follow the direction of the senior project manager.

Under this direction, the new information system cannot be exported to other installations until it passes 90 days of operational testing and evaluation and obtains approval from the Major Automated Information Systems Review Council. The operational tests, originally scheduled for August 1993, recently slipped to December 1993. As of April 1994, the data collection phase of the test was complete. However, the final report is not expected to be issued and reviewed by the Major Automated Information Systems Review Council until late May 1994. According to the Deputy Under Secretary of Defense (Logistics) official responsible for logistics CIM, this program authority problem will be remedied by making JLSC, and not the Air Force, responsible for managing the system project.

The existence of two separate and conflicting lines of authority for project management of logistics information systems development exemplifies DOD's failure to establish the management structure needed for CIM to succeed. Private industry and GAO studies show that a strategic plan that clearly articulates responsibilities and describe how the initiative fits with other organizational priorities is critical to the success of initiatives like CIM. We have stated in the past that the Office of Secretary of Defense would need to provide strong leadership and establish an

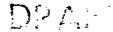
organization with clear lines of authority and accountability for CIM to succeed.

In late 1993, a Defense review group found that current program management direction divides the responsibility and accountability for developing CIM migration systems. The core issue, the review group said, was the need to "minimize management layering and delegate review and milestone approval authority commensurate with the resources and risks involved." The group identified four options for assigning CIM responsibilities to a particular organizational unit or senior DOD manager. While these options may address the immediate case of conflicting authority, we believe that DOD must establish clear lines of program management authority and accountability that establish CIM's priority within other Department priorities.

#### CONCLUSIONS

The impediments JLSC faces illustrate fundamental problems in DOD's management of the overall CIM initiative. DOD has yet to come to terms with the management challenge posed by the CIM initiative—that is, can DOD change long-standing, fundamental aspects of its

Defense ADP: Corporate Information Management Initiative Faces
Significant Challenges (GAO/IMTEC-91-35, Apr. 22, 1991);
Defense ADP: Corporate Information Management Must Overcome
Major Problems (GAO/IMTEC-92-77, Sept. 14, 1992); and Defense
Management: Stronger Support Needed for Corporate Information
Management Initiative To Succeed (GAO/AIMD/NSIAD-94-101, Apr. 12, 1994).



culture and should business processes or technology be the driving force in managing Defense information?

Although the ultimate success of CIM will depend upon the mutual commitment and support of the Office of the Secretary of Defense, the military services, and DLA; DOD has not taken sufficient actions to effectively gain this commitment and support. In addition, DOD has not established formal policies or directives addressing how the respective roles of the Office of the Secretary of Defense and services should change to meet CIM issues. It has not clearly articulated its CIM vision and goals or developed comprehensive management and implementation strategies with well-defined objectives, specific major tasks and performance measures, and clear roles and authorities for implementing the CIM initiative.

On the basis of industry experience, DOD's success in reengineering business operations will depend on the commitment of the entire organization. To build this commitment, it is imperative that top DOD managers fully understand, enthusiastically support, and constantly communicate the overall initiative and reengineering efforts being made. Organization members must collectively understand the organization's business operations, how these operations interrelate, why operations need to be improved, how these improvements will help meet mission requirements, and how improvements will be implemented.

DOD officials have acknowledged that less than full acceptance of CIM efforts by senior-level Defense managers, the lack of integration of CIM efforts across DOD, and conflicts among Defense managers have impeded JLSC's and others', progress toward implementing the CIM initiative. Although DOD has taken some actions to address these impediments, they have not been successful. We believe that the impediments will continue to jeopardize the CIM initiative until DOD changes its organization culture to support its new ways of doing business.

### RECOMMENDATIONS

To overcome the fundamental weaknesses in the CIM initiative, as demonstrated by the impediments to JLSC's progress, we recommend that the Secretary of Defense take actions to encourage cultural changes supporting the new Defense business operations.

In our most recent report on the overall CIM initiative, we recommended a number of actions for making these cultural changes.

Among these recommendations were the following:

-- Ensure the expeditious development of a management strategy with well-defined roles and authorities to manage the CIM initiative and gain the mutual commitment and support of the services and DLA needed to overcome cultural barriers that are deeply entrenched in DOD. This strategy should include (1)

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establishing a Chief Information Officer and (2) creating a committee or board that includes the Deputy Secretary of Defense, the service secretaries, PSAs, and the Chief Information Officer.

- -- Ensure the development of a cohesive, complete strategy to guide the CIM implementation and integration. Building on past recommendations and plans, this strategy should clearly articulate the goals and objectives of the CIM initiative, identify major tasks to be performed and the resources needed, define responsibilities and authority for completing tasks, and prescribe milestones for CIM implementation.
- --- Direct the PSAs to establish CIM implementation plans for their functional areas that are consistent with the overall CIM strategies, goals, and objectives. These plans should include performance measures to evaluate progress, assess current operations and reengineered processes, and identify costs and benefits derived from improved business practices and supporting information systems.

To ensure the full commitment and support of all members of DOD to the successful implementation of CIM, we also recommend that the Secretary of Defense:

-- Train DOD employees (at all levels) to promote understanding

and acceptance of changes needed to their current ways of doing business.

-- Change the name of the CIM initiative to (1) lessen the confusion that has been created as the initiative has evolved and (2) more accurately communicate the primary objective of the initiative.

### AGENCY COMMENTS



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### DESCRIPTION OF ONGOING NEAR-TERM INITIATIVES

This appendix provides a brief description of the five materiel management and two depot maintenance near-term initiatives that are being implemented through the logistics CIM. Each description includes information on the purpose, expected costs and benefits, and schedule.

### MATERIEL MANAGEMENT INITIATIVES

#### Cataloging Tools On-Line

This initiative is a materiel management productivity aid for DOD catalogers. When DOD introduces a new supply item into its inventory, the item is listed in a catalog provided to the services and DLA. Currently, catalogers use paper technical drawings, specifications, vendor catalogs, guidebooks, procedural manuals, and regulations to complete cataloging steps such as writing a brief description of the supply item, making drawings, and assigning it a stock number.

Cataloging Tools On-Line, a DLA system, enables the cataloger to electronically access reference documents, simultaneously compare technical data with drafted descriptions, and automatically check

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for errors. Catalogers using this automated aid are expected to create catalog entries much faster and more accurately than is currently done.

JLSC projects that the 10 new sites receiving the Cataloging Tools On-Line system will save about \$74.5 million over the next 8 years through the elimination of manual processes, reduced rejection rates of ordered items, and better availability of and access to maintenance information.

### Commercial Asset Visibility

This initiative enables DOD supply item managers to better monitor the repair of government-owned equipment by private contractors. DOD routinely contracts with private companies to repair government equipment and usually provides the equipment and the material the contractor needs to make the repairs. The Commercial Asset Visibility system, which combines parts of automated systems operational at Navy and Air Force sites, provides item managers with automated records on the contractor's repair process. Using these automated records, item managers can compare on a daily basis contractor and government records of equipment status, condition, location, and quantity.

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JLSC expects that with more timely and accurate information, the Army, which currently does this process manually, will gain better visibility over its assets that are located at contractor sites. As a result of this increased visibility, the Army might be able to reduce its equipment losses by one-third (from 1.5 percent of the total value of reparables to 1 percent). JLSC projects that this reduction will save the Army about \$22.8 million over a 20-year period.

Also, item managers can use equipment status information in the system to ensure contractors are provided with the right material needed to repair the equipment in a more timely manner. Based on preliminary analysis, JLSC believes this can reduce the average time Army contractors spend making repairs from 120 days to 118 days. This 2-day reduction in time could save the Army about \$5.5 million over a 20-year period.

As of September 1993, the Commercial Asset Visibility system was operating at 10 Army contractor sites. As a by-product of this implementation, item managers have found that contractors possessed about \$12.7 million more in government-owned equipment than shown in DOD records. JLSC is assessing whether this found equipment can be used to reduce the amount of equipment the Army expected to buy for use by the contractors.

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### Configuration and Logistics Information Program

This initiative enables service users to make more accurate and timely purchases of replacement and repair parts for weapon systems and equipment. The services maintain various versions (configurations) of the same weapon system and equipment tailored to a unit's specific mission requirements. Each of these configurations require unique replacement and repair parts. Currently, most service users rely on manual documentation, which is often inaccurate and out of date.

The Configuration and Logistics Information Program is an automated information system operating in the Marine Corps and Navy. It provides users with detailed information needed to build, procure, maintain, and repair each of the various weapon system and equipment configurations. It enables the users to purchase the right parts for each weapon system or piece of equipment. Although JLSC expects the system to be installed at various sites across all services, it has not yet projected the overall cost savings. As of September 1993, it had projected that one Marine Corps site would save from \$1.8 million to \$2.8 million over the 8-year period from fiscal years 1992 through 2000.



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### Defense Expert Supply System

This initiative is intended to allow supply centers to provide better customer service with fewer employees. Currently, supply center customers can order supplies, check stock numbers, and receive status information on their supply orders over the telephone. However, they must wait for supply personnel to become available to manually query the automated supply information system.

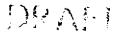
The Defense Expert Supply System, in operation at some DLA supply centers, allows customers using touch-tone telephones to directly access the automated supply system for answers to their questions.

JLSC expects to place the new system at 10 supply centers. As of September 1993, the system had been installed at 4 of the 10 sites.

Although system benefits have not yet been validated, JLSC expects that customer service costs at each of these sites will be reduced by about \$400,000.

### Integrated Technical Item Management and Procurement

This initiative decreases the time needed to prepare and award contracts for commonly used supplies such as nuts, bolts, fuses, and electronic parts. Currently, most services must manually obtain and compile documents into purchase requests needed to buy



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supplies from manufacturers; identify manufacturers that produce the supply items; solicit bids from available manufacturers; select the manufacturer to be used; and print, sign, and award contracts. Because of the manual intervention required to develop and compile these purchase requests, the process is time-consuming and error prone.

The Integrated Technical Item Management and Procurement system, being used by two Navy inventory control points, automates the DOD supply contract development and award process. The system consolidates information on the quantity, quality, and type of supply items being purchased; manufacturers of the item; and contract bid and award procedures. It allows supply managers to automatically develop supply contracts and send them to manufacturers.

As of September 1993, the latest version of the system had been installed at two Navy and one Marine Corps sites. Data were being collected to validate costs and benefits at these sites.

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### DEPOT MAINTENANCE INITIATIVES

### Hazardous Material Management System

This depot maintenance initiative is intended to reduce the amount of money maintenance depots spend for hazardous materials such as paint thinner, oils, and chlorine. Currently, the depots spend more than \$300 million each year to buy hazardous materials used in the repair and maintenance of end items. Officials acknowledge that a significant portion of these materials is wasted.

In 1992, the Air Force implemented the Hazardous Material Management System at its Ogden Air Logistics Center to provide information about who received hazardous materials; which and how much they received; and when, where, and how the materials were used. With this information, Ogden managers identified wasteful practices, such as workers receiving more material than needed for the job. In addition, they found that workers were storing excess material in their lockers and that stored materials were being improperly sealed. Depot management subsequently changed the methods for handling hazardous materials. For example, materials are now issued only in the amount needed. As a result, Ogden reduced the amount of hazardous materials purchased in 1992 by nearly 39 percent, or a \$7.7 million net cost savings.

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JLSC plans to install the Hazardous Material Management System at 27 maintenance depots and projects that they will save between \$83.3 million and \$202.3 million over a 6-year period. As of September 1993, the system had been installed at seven sites.

### Programmed Depot Maintenance Scheduling System

This initiative is intended to streamline the planning, scheduling, and production overhaul and modification of equipment by maintenance depots. Currently, many depots use manual procedures or antiquated automated systems to plan, schedule, and manage their repair activities. Accordingly, these plans and schedules are not easily changed. They must include extensive and detailed information such as descriptions of work tasks to be performed, time required for the work, skills and material needed to do the work, and the sequence in which the work needs to be done to optimize the available resources.

To manage the repair activities, managers track information such as the status of work done, work planned, resources used, resources available, and so on. However, the depots often experience unanticipated changes such as an increase in work to be done, fewer resources available to do the work, or a shift in work priorities. These changes usually result in significant delays to the repair work.

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The Programmed Depot Maintenance Scheduling System, operating at the Air Force's San Antonio Air Logistics Center, automates and integrates the maintenance depot's repair planning, scheduling, and management information processes. Using the system, depot management can plan and schedule the most optimum use of available resources to perform required repair work. As unanticipated changes to workload, resources, and work priorities occur; the system allows depot managers to quickly develop new plans and schedules that optimize operations. In addition, the system provides managers with up-to-date status information, including work completed, resources used, work to be done, and resources needed to do it.

Based on the then-planned workloads at the specific depots, JLSC projected that use of the automated system at 16 maintenance depots would reduce DOD costs by at least \$126.8 million over the 6-year period ending in fiscal year 1997. As of September 1993, the system had been installed at 7 of the 16 maintenance depots. JLSC was collecting cost and benefit data at these operational sites to validate its savings projections.

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#### DESCRIPTION OF MIGRATION SYSTEMS

This appendix provides brief descriptions of the 27 CIM migration systems selected to support the logistics functions of materiel management and depot maintenance.

#### MATERIEL MANAGEMENT

Automated Inventory Management Support System: Enables item managers to automatically process recommended buys, simulate changes, and view historical data. Provides the capability to modify recommended acquisition quantities or levels and add or delete delivery/storage locations.

<u>Cataloging System (DO43)</u>: Receives on-line descriptions of federal and service supply items and sends them to the Defense Logistics Service Center.

<u>Cataloging Tools On-Line</u>: Automates paper copy guidebooks, procedures, and regulations needed to catalog new consumable items.

Central Secondary Item Stratification: Automates the retrieval, analyses, adjustment, and arrangement of supply requirements data used to budget procurement and repairs, report inventory,

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stratify assets by need (operational, war reserve, long supply), display readiness of supply position, and manage the inventory.

Commercial Asset Visibility: Enables users to monitor the status of government-owned equipment in the possession of commercial contractors. Automates the reconciliation of contractor and government records of equipment condition, location, and quantity.

Configuration and Logistics Information Program: Allows the user to collect and record engineering data, engineering change proposals, and directives; provides documentation and technical data for every configured item; and allows the user to record the implemented configuration on weapon systems and equipment.

<u>Defense Supply Expert System</u>: Allows users to requisition supply items over the telephone. Users can create and modify asset requisitions, access asset requisition status and stock availability, and reach a customer service representative.

<u>Deficiency Reporting System</u>: Automates the collection, processing, and storage of deficiency and discrepancy data on weapon systems and equipment.

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Generic Configuration Status Accounting System: Provides status of accounting information and interfaces with retail-level maintenance systems. Changes made to aircraft configurations are also captured and forwarded to a data repository.

Integrated Technical Item Management and Procurement: Automates pre-procurement functions, including purchase request processing, and passes validated requirements information to procurement personnel.

Interactive Computer Aided Provisioning System: Automates initial provisioning functions and allows users to track design change notices on a personal computer.

Initial Provisioning Management Information System: Develops and supports contract and planning information used to track initial provisioning schedules and milestones. Provides the capability to review funding and item requirements.

Logistics Planning and Requirements Simplification System:

Provides provisioning, processes data item selection sheets, and
generates logistics support plans.

Joint Engineering Data Management Information Control System:

Stores engineering drawings in a standardized format for use by

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all services.

Maintenance Planning and Execution System: Automates the computation of repair schedules and budgets; provides workload management data; tracks the value of unserviceable assets; serves as the central repository for depot-level maintenance requirement and resource data, including schedules rates, staff-hours, and dollar requirements; and provides program status for aircraft, missiles, and support equipment.

Modification Management Information System: Tracks engineering change proposals from their initiation through the approval process and, if approved, through their implementation.

Multi-User Engineering Change Proposal Automated Review:

Automates the receipt and storage of proposed engineering changes

made by contractors and the government.

<u>Pre-Procurement Support System (J090A/B)</u>: Enables logistics personnel to develop and move a complete procurement requirements package from requirements identification to contract approval.

Repair Priority and Distribution: Allows item managers to prioritize repairs by item, optimize weapon system availability through marginal analysis, and direct redistribution of repaired

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items. Reallocates assets in support of weapons.

Requirements Determination and Execution System: Automates the calculation of requirements for procurement cycles and safety level of supplies.

Statistical Demand Forecasting System: Enables item managers to track observed demands against expected demands and indicates which dollar significant items have legitimate change in demand pattern. Identifies items requiring reforecasting using statistical and work load parameters.

Stock Control System: Processes information from requisitions and receipts; assists in requirements determination; integrates materiel management, depot maintenance, and retail data; provides requisition status, disposal management, financial inventory reporting, pricing and tracking, and deficiency reporting; and serves as a repository for information necessary for transportation links.

Technical Data Management System: Builds supply requests, screens transactions, creates and modifies federal catalog items, maintains freight data, and processes annual price changes.

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Total Asset Visibility: Provides for total visibility of assets from storage, production, and repair to delivery during both wholesale and retail activities.

#### DEPOT MAINTENANCE

Depot Maintenance Management Information System: Provides depot maintenance managers with an automated capability to forecast work loads; schedule repair activities; track and control inventories; program staffing, materials, and other resources; and track and manage production costs.

Hazardous Materiel Maintenance System: Records the receipt and issue of all hazardous material within a maintenance depot.

Provides inventory visibility of all hazardous material to control the issue of hazardous material to authorized users.

<u>Programmed Depot Maintenance Scheduling System</u>: Supports the planning, scheduling, and management of programmed depot maintenance of major end items.

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#### RELATED GAO REPORTS

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